

HEWLETT-PACKARD IMAGE STUDY

Final Report (Draft 1.1)

Submitted to:

McCann-Erickson

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INPUT

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HEWLETT-PACKARD IMAGE STUDY

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HEWLETT-PACKARD IMAGE STUDY

I. INTRODUCTION

This report is the result of a study conducted by INPUT for McCann-Erickson.

A. Objectives

The specific objectives of the study, as presented in the study proposal, *Appendix A*, were to develop a profile of HP's image in the market place, and identify HP's key competitors in the information technology and services market.

B. Methodology

Several sources of information were utilized to develop the conclusions reached in this report. They include:

- Data drawn from INPUT's existing database of information on HP and its competitors.
- Interviews conducted with INPUT's consultants and analysts. (The interview guide is contained in *Appendix B*.)
- Telephone interviews were conducted with key industry leaders.

A total of nine INPUT consultants were interviewed and five telephone surveys were completed. The focus of both sets of interviews was to obtain the respondents' opinions on HP's image as a whole, as well as their views on HP's individual lines of business. Emphasis was placed on those aspects of HP's business targeted at the information technology and services markets; namely the Computer Products and Computer Systems Divisions. Conclusions and recommendations were developed utilizing both the field interviews and the information obtained from INPUT's syndicated research studies.

C. Organization of the Report

- *Chapter II - Executive Summary* summarizes the overall conclusions drawn from the study.
- *Chapter III - Business Line Analysis* looks in greater detail at HP's major lines of business in terms of image and competition.
- *Chapter IV - Vertical Markets* presents INPUT's analysis of where HP stands with regard to specific market niches by industry or product/service line.
- *Chapter V - Conclusions and Recommendations* presents a summarizes key conclusions and gives INPUT's recommendations for further study.



II. EXECUTIVE SUMMARY

A. Background

HP moved into the number three ranking of computer companies in 1991; surpassing UNISYS and following IBM and Digital Equipment Corporation which hold the number one and number two positions. Of the total reported revenues of \$14.5 billion in revenues in 1991, INPUT estimates that approximate \$10.7 billion were the result of HP's participation in the information technology and services markets. The remainder were generated through its components and instrumentation divisions.

Volume shipment of the HP Laserjet III, estimated to command 75% share of its market according to Computer Intelligence, along with significant announcements in price performance on its workstations, and significant growth in its multi-user UNIX business all led to a solid year in a weak worldwide economic environment. Product introductions such as the HP 9000 series 700 workstation, the HP 95 Palmtop computer and the HP DeskJet 500C printer gave HP a new presence in product markets where new offerings are critical to maintaining market share.

In general, HP showed good performance in 1991, doing well at what it's been doing well for a considerable period of time.

B. HP's Overall Image

Even though the sample was small, the analysis of the surveys produced some significant results in terms of HP's overall image.

- Respondents overwhelmingly see HP as a hardware products company. On a scale of 1 to 5, with five being the highest, the hardware categorization was rated 4.9. On the other end of the scale respondents rated HP 2.3 in terms of being a solution provider (providing an integrated solution to meet customers applications or processing requirements.).
- Furthermore, HP enjoys an image of being a quality firm producing quality products. The average response on the 1 - 5 scale rated HP 4.6 on quality.
- Of the product and service categories tested the HP Laserjet printer received at rating of 4.6. (A discussion of market images for other major HP offerings is contained in *Chapter III*.)

Analysis of the field data would indicate that in general HP is perceived as a holding company with various divisions pursuing individual product strategies, exploiting a strong base central R&D function. Little is done by the divisions or executive management to take advantage of the potential synergy between product offerings, or to provide a broader base of solutions integrating third party software coupled with professional services. The exception to this position is in the area of manufacturing and factory floor automation where HP's offerings have an excellent reputation and in some instances are considered the best available.

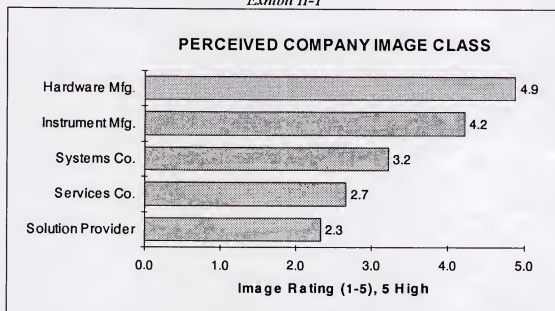


Several respondents commented that the single integrating factor for HP may be **quality**. But, the majority feeling was that HP did little to leverage its excellent reputation for quality in terms of its advertising or promotion. In fact, using the 1 - 5 scale HP's corporate advertising was ranked a mediocre 3.0, and a 3.1 at the divisional or product level. Five of the respondents couldn't recall anything specific about HP's corporate promotional strategy.

C. Competitive Positioning

As indicated in the *Executive Summary* the dominant perception of HP is as a hardware manufacturer. *Exhibit II-1* shows how respondents rated HP across 5 classes of information technology and services companies. If we eliminate the Instrument Manufacturing category from the ratings, it becomes quite clear that HP is perceived primarily as a hardware manufacturer. From a competitive viewpoint this places them up against IBM, Digital, Unisys, Amdahl, Hitachi, Fujitsu, Machines Bull and ICL at the high end of their product line; and head-to-head with a host of companies competing in the workstation, peripheral and PC markets. This section will present INPUT's views on how HP compares to those firms which participate in multiple markets against HP. *Chapter III - Business Line Analysis* will focus on how it compares with its competition on key specific product offerings.

Exhibit II-1



1. Digital Equipment Corporation (DEC)

Just one rank ahead of HP in terms of revenues of U.S. computer manufacturers, DEC is undergoing (not without significant pain) a major restructuring of its position in the market. Until the late 1980's DEC's could be characterized primarily as a high quality systems manufacturer with a complete line of integrated products appealing primarily to businesses focused on engineering and manufacturing. To a large degree, not unlike HP's image today.



Through a network of value added resellers and partners providing applications software, DEC achieved significant penetration into industries beyond manufacturing and engineering during late 1980's and has made a conscious decision to focus on services and solution selling for the 1990's. It has a full line of products and excellent network offerings; and is embracing a strategy of open systems (comparable to HP's) which allows it to position itself head-to head against companies like IBM, Andersen and others in offering fully integrated solutions to end-users.

DEC has built an Enterprise Services division with capabilities in applications development, systems integration and systems operations to integrate its (and other company's) hardware offerings into solution packages and has grown revenues in this area from \$140 million in 1988 to over \$ 600 million in 1991. It offers pricing which is more attractive than HP's and presumably makes up the difference in margin by the value-added provided through its services and integration strategy.

2. IBM Corporation

Not unlike DEC, IBM has gone through consider adjustments to the market in recent years. Current trends to downsizing, open systems, and solution buying coupled with decreasing margins on large proprietary mainframes have forced IBM into a "get with it" strategy. This means solution selling, vertical industry focus and a willingness to deal with heterogeneous computer environments. IBM now treats consulting, outsourcing, systems integration and professional services as separate lines of business. Given the large potential of the market for integrated solutions, IBM should get a lion's share; and their revenues in these areas are growing rapidly. However, it will take some time before IBM can evolve the culture and processes necessary to get the herd of elephants to act like a pack of wolves in terms of attacking specific market opportunities.

The common ground with HP is really in mid-range systems, workstations and PCs. This pits HP's product line up against IBM's AS/400 mid-range (a jewel that IBM doesn't seem to get maximum leverage out of), the RISC6000 and IBM's line of personal computers. INPUT's views how HP stacks up in this area will be presented in *Chapter III - Business Line Analysis*; but in summary IBM wins in most markets with the AS/400 and probably has an inferior image in the other two, at least for the moment. Both are considered more expensive than DEC.

3. Other Competitors

UNISYS, NCR, and a number of foreign competitors participate in HP's mini, workstation and PC markets. Most of the competition is on a niche basis. Clearly HP's overall recognition in the market is superior to most of these competitors. Yet, each has some specific niches where they have particular market dominance on the basis of their technology or industry knowledge. Some specific areas worthy of note and relevant to HP's market position are as follows:

- UNISYS has a strong presence in financial markets and is making a good reputation in image processing in a variety of industries.



- NCR should not be underestimated. It's somewhat cantankerous marriage with AT&T provides a wealth of R&D which could potentially leverage NCR's position in the market as a technology innovator.
- Tandem has some unique niches with regard to non-stop computing that HP does not appear to be able to challenge. It also supports an industry oriented focus which is the preferred way to market for solution selling.
- Sun Microsystems still leads the way in workstations at the moment, although new pricing strategies and product announcements place HP in a potential leadership position.

D. Summary

HP's overall image is one of a quality manufacturer of information technology products; a very large niche company. Probably unknown in consumer markets with the exception of its calculator and laser printer offerings, HP in a way is the "grande dame" of Silicon Valley firms. By some accounts the founder of the Valley, HP remains conservative and somewhat provincial as a corporation, despite a worldwide presence. Many of its innovative concepts have been left for its offspring or Valley upstarts to develop.

Despite different strategies across different world geographies and product divisions, HP's single unifying element seems to be quality. Based on the limited sample taken in this study, HP has done little in terms of promoting that attribute as a unifying element in the promotion of its image.

Although there appears to be some evidence in the press that HP is setting up a Systems Integration function, HP has not elected to adopt an overall strategy of selling integrated solutions directly to end-users, an approach being adopted by all its major competitors. INPUT believes that embracing such a strategy will be key to the survival of hardware manufacturers in the 1990's. Unless HP looks to that approach, it's likely that it will find itself (if not already) a second tier vendor.

III. BUSINESS LINE ANALYSIS

As part of INPUT's survey respondents were asked to give their opinions of how HP is perceived with regard to a specific set of product and service offerings (lines of business). Interviewees were also asked to list HP's major competitors in each line of business and offer any comments they might have regarding HP's competitive position. The product service areas covered were:

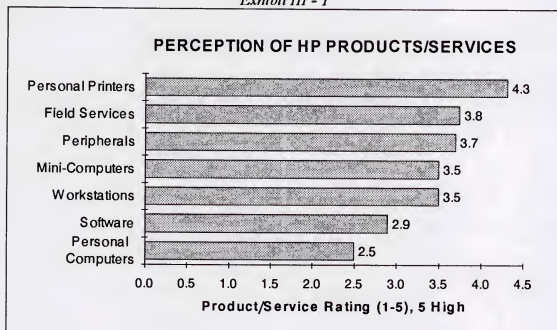
- | | |
|----------------------|---------------------|
| • Mini Computers | • Personal Printers |
| • Peripherals | • Software Products |
| • Workstations | • Field Service |
| • Personal Computers | |

Section A, below, analyzes respondents views on HP's image with regard to each line of business. Section B analyzes the competitive environment for each line.

A. Perceptions of HP's Offerings

Exhibit III - 1 shows the average of the survey responses to the question, "How do you believe the industry rates HP against its competitors for each line of business?". A scale of 1 to 5 was used with one representing an "inferior" position and 5 a "superior" position. The responses have been ranked from high to low and are discussed in that order.

Exhibit III - 1



- **Personal Printers** - Clearly HP's strong point, the rating of 4.3 is significant even in this small sample. The flagship offering, the HP Laserjet series, is the uncontested runaway for most personal, desktop and local area network (LAN) applications. Now equipped with the ability to use the Postscript language, HP's printers go head-to head with the Apple Laserwriter as well. Virtually, every major writer of PC software has made HP the priority printing engine in terms providing software drivers to insure that their products can utilize the printer. The explosion of Microsoft's Windows environment along with other graphical user interfaces guarantees growing demand for increasingly sophisticated printers at all price levels.

Further developments using ink-jet technology as well as color printers at reasonable prices will continue to give HP a strong position with an entire family of printing options. This line of offerings coupled with HP's emerging strength in scanners for personal and commercial use places HP in an enviable position. However, without a strategy which packages this technology with others, HP could become a victim of the clone makers, just as IBM's market share leadership in PCs was eroded.

- **Field Service** - HP has long enjoyed a good reputation for providing high quality field service (hardware maintenance and support) for its computers, peripherals and other "in field" technology. This reputation is worldwide and HP has invested heavily in applying new technologies and innovative concepts to delivery of this service to remain cost competitive and state of the art. Diagnosis and support are delivered through a worldwide integrated network providing 24 hour-a-day access to on-line analysis tools and databases.

It should be noted that this is one area where HP has taken a "total solutions" approach, expanding services to deal with facilities management of entire user networks, including non-HP hardware and key software packages. As in some other lines of business, respondents felt that HP did little to proactively promote this extensive capability.

The downside in this area of HP's business, is that field service is increasingly competitive. As field installed hardware becomes increasingly self-diagnostic, offerings will need to become increasingly sophisticated (read value-added) to maintain growing revenue streams and healthy margins.

- **Peripherals, Mini Computers, Workstations** - Respondents ranked HP above average but not superior in these three categories. In general, HP is well thought of in all three areas, but there plenty of competitors knocking at the door. And, with new product innovation continually producing more cost competitive offerings, HP like other hardware manufacturers will need to continue to make heavy investments in product development just to hold on to market share. Furthermore, with the possible exception of workstations, and one or two vertical markets, HP is perceived as an OEM (Other Equipment Manufacturer), i.e. providing one or more components to a total solution being sold by a turnkey systems, systems integrator or other value added reseller. This places a good deal of their potential market in the hands of third parties.

HP's quality and reputation for technology will probably permit it to hold its own in all these areas. The bright spot is probably workstations, where the acquisition of Apollo coupled with HP's R&D can keep them leading edge in a rapidly growing market.

- **Software Products** - Respondents certainly don't rate HP high (2.9) as an industry leader in software products, even though HP has its high points in this area. The development of specialized software for manufacturing and healthcare, and systems software such as New Wave (object oriented interface) and UNIX implementations for open systems all have demonstrated HP's capabilities with software. However, consistent with HP's overall hardware product line orientation, nothing has been done to pull this capability together in a way that the industry perceives HP to be in the software business.

Recently, HP has taken a more aggressive position in software. Lobbying to make its developments in UNIX, along with products like New Wave, industry standards could yield additional revenues from the sale and licensing of software, but provide value added to its hardware products through improved functionality.



- **Personal Computers** - It's INPUT's position, and survey respondents seem to agree (rating 2.5), that HP has missed the window of opportunity to compete in this market as a major commodity player. There is nothing unique about their offering, and it's hard to believe that they can remain price competitive in a market where margins are constantly decreasing. The real hope for HP in this area would be a bundling of their PC offering as part of a total solution package. Two respondents commented that had selected HP for their personal computer standard only because of HP's ability to provide high quality service and parts on a worldwide basis.

Overall, respondents to the survey felt that the industry viewed the majority of HP's product and service offerings with respect; the obvious leadership position being in the desktop printing area.

B. Competitive Position for Individual Product Lines

Exhibit III - 2 summarizes respondents thoughts on competitors who are better perceived in HP's primary business lines. (No responses were received regarding competition in field services or peripherals. See Note below.) The field labeled *Competitor/Count* gives the name of the competitor that was cited as superior and the number of mentions. The *Comments* field gives the primary reason(s) why the competitor was cited.

Exhibit III - 2
HP's COMPETITIVE POSITIONING BY BUSINESS LINE

Business Line	Competitor/Count	Comments
Personal Printers	Texas Inst. 2	- Better price performance
	Apple 2	- Superior handling of Postscript
Mini Computers	DEC 8	- Full offering, solution oriented
	IBM 6	- AS/400, applications software
	Tandem 2	- Fault tolerance
	Other 2	- Plug compatible - better price
Workstations	Sun 9	- Technology, software
Software Products	Microsoft 6	- PC operating systems/apps.
	Oracle/Ingress 4	- Database/SQL Offerings
	Various 3	- Applications software
Personal Computers	Clone 10	- High quality clones (Dell)/price
	COMPAQ 7	- Full product line
	IBM 5	- Installed base
	Apple 3	- Unique interface

Note: Since field service is a proprietary business dependent on the hardware supported, identification of specific leaders would be out of context for purposes of this survey. In the case of peripherals, the audience sampled largely felt they were unqualified to comment on who might be superior, or indicated that they could only answer for specific classes of peripherals. That level of depth was beyond the scope of this study.



INPUT interprets the results presented in *Exhibit III - 2* as follows.

- As reinforced by the earlier findings, HP enjoys an unparalleled position in the desktop printer market. The competitors listed with potentially superior offerings were either clones or unique products such as Apple's Laserwriter tailored for Postscript.
- In the mini-computer area the dominant competitors are clearly DEC and IBM. The reasons cited play largely to the notion that both vendors provided a richer set of offerings with more off-the-shelf software in most application areas and available service capabilities to provide total solutions.
- Workstations are harder to call. The only competitor listed as potentially superior was Sun. A number of respondents indicated that that superiority may only be transitory.
- Results in the PC and software area reflect INPUT's earlier assertion that HP is essentially a minor player. In general, respondents felt that you could get more for your money and perhaps a richer set of options on the PC side of the equation by dealing with traditional large vendors like COMPAQ and IBM or by going with high class clones such as Dell.

Responses regarding software cited some specific areas where HP had produced unique either application or operating system oriented products, but indicated that by an large respondents don't consider HP to have more than a handful of specialized offerings at the moment.

IV. VERTICAL/CROSS-INDUSTRY MARKETS

Interview responses regarding either vertical industry or cross-industry markets were fairly consistent. In the cross-industry area HP is perceived to have a strong industry position in Science/Engineering and Desktop Automation. Process Manufacturing, Discrete Manufacturing, Healthcare and to some degree Financial Services are the vertical industries where HP seems to have a niche. *Exhibit IV - 1* summarizes HP's position in cross-industry markets.

Exhibit IV - 1
HP's POSITION IN CROSS-INDUSTRY MARKETS

Market	Product	Description
Science/Engineering	Workstations PCs Mini Computers CAD/CAM	Out of HP's heritage in scientific computing. Leverages HP's recent move to UNIX and other open environments. Some proprietary software developed by HP.
Desktop Automation	PCs Laserjet Scanners	Desktop publishing, office automation and networking capability. May leverage HP's field service and support packaged as Desktop Services.



Exhibit IV - 2 summarizes HP's position in key vertical industry markets.

Exhibit IV - 2
HP's POSITION IN VERTICAL INDUSTRY MARKETS

Market	Product	Description
Process Manufacturing	Workstations PCs Mini Computers Instrumentation	HP's long history of process monitoring and control instrumentation combined with LAN capabilities provides a good opportunity for value add in this industry.
Discrete Manufacturing	PCs Mini Computers Software Instrumentation	HP already has an established record in shop floor automation and control as well as some unique software. This industry continues to provide opportunities for HP solutions.
Healthcare	PCs Mini Computers Instrumentation	HP participates heavily in the healthcare instrumentation market and currently provides solutions for the healthcare industry.

Both vertical and cross-industry environments are where HP currently provides solution rather than product oriented offerings. These may have great potential for further expansion.

V. CONCLUSIONS/RECOMMENDATIONS

A. Conclusions

- HP's industry image is already positive. However, the firm has no well defined single image in the market other than a manufacturer of high quality information technology products and instruments.
- There are some areas where HP has a strong position in particular vertical industry or cross-industry markets. INPUT believes that to sustain market growth in an environment where computer hardware is increasingly becoming a commodity, these markets need to be leveraged and new ones developed.
- From a competitive viewpoint HP is way ahead with regard to its desktop printer offerings. Other products examined with this small study seem to rank above average, but are not unique enough as individual offerings to be perceived as highly differentiated in the present market. Additional value-add is needed.
- HP's on-going basic R&D and reputation for quality are probably under-utilized in terms of creating its overall market image.

B. Recommendations

INPUT believes that HP can increase its market share for existing products and services as well as develop new markets through a two pronged approach; targeting full solutions through the integration of existing products as well as those of alliances, and better promotion of its existing offerings through packaging. The following outlines the recommendations that INPUT would make to HP, to accomplish those objectives.

- At the corporate level, leverage quality and R&D as the underlying dominant image of HP in the information services market.
- Consider the formation of cross-divisional marketing organizations to develop and refine industry and cross-industry specific solutions. Promote these as utilizing the corporate theme of quality and state of the art technology through research. *(Such organizations may exist within HP today. At the time of this writing, INPUT was unable to determine whether they did or didn't. If such organizations do exist they are not highly visible in terms of HP's promotional activity.)*
- Place more promotional emphasis on HP's commitment to open systems and alliances with software and services firms which will permit the development of full solutions.
- If, in fact, HP is planning to develop an internal Systems Integration capability, utilize it to promote and market the total solution approach focused on key vertical and cross-industry markets.

APPENDIX A

Hewlett-Packard Image Study Interview Guide



HEWLETT PACKARD IMAGE STUDY

Interview Guide

Name: _____
Title: _____
Company: _____
Address: _____
City/State/Zip: _____
Telephone: _____

We are trying to gather information on your perceptions of Hewlett Packard as a participant in the information services industry. It would be greatly appreciated if you could provide us with the answers to a few brief questions to assist us in getting your impressions regarding HP's overall image, your viewpoints on some specific classes or products and service offerings, and any other thoughts you might have regarding HP's participation in the market.

- 1.0 The following five terms describe ways in which HP and other companies in the industry might be characterized. On a scale of 1 - 5 please give me your impression of the degree to which the term applies to HP. (1 = Not applicable, 5 = Very applicable)

_____ Systems Company (Hardware/Software)
_____ Services Company
_____ Hardware Manufacturer
_____ Instrument Manufacturer
_____ Solution Provider

- 2.0 Using the same 1 to 5 scale to what degree do you perceive HP to have a single image in the market place?

- 2.1 What would you say that HP's overall image is?



- 3.0 HP like other major industry player's participates in a variety of vertical and cross-industry markets. I'd like you to list each vertical or cross-industry market where you believe that HP has a significant position. For each one, I'd like you comments as to what HP products or services help give HP a good market position.

Market	Comments
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

- 3.1 Do you have any other comments on HP's position in vertical or cross-industry markets?

- 4.0 On a scale of 1 to 5 how would you rate HP's image with regard to quality?

- 4.1 What products or services would you say give them that quality rating? (Good or Bad.)

- 5.0 Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories of product or services. (1 = Low, 5 = High) I'd also like your impression of which of HP's competitors have superior offerings in each category.

Rate	Product/Service	Comments on Competitors
_____	Mini Computers	_____
_____	Peripherals	_____
_____	Workstations	_____
_____	PCs	_____
_____	Printers/Desk	_____
_____	Software	_____
_____	Field Service	_____

- 5.1 Are there products or services that I failed to list that you would like to comment on? If so, please rate and describe them below.

Rate	Product/Service	Comments on Competitors
_____	_____	_____
_____	_____	_____
_____	_____	_____

- 6.0 What is your perception of HP's current corporate level advertising in terms of conveying a company identity or image? (Please use the 1 to 5 scale, 1 = Ineffective, 5 = Very effective.)

- 6.1 What is your perception of HP's product or division specific advertising? (Please use the same rating scale as above.)

- 7.0 Do you believe that the market perceives HP as primarily a holding company or a provider of integrated solutions? Please check the appropriate box below.

- ☐ Holding Company
☐ Integrated Solution Provider

- 8.0 Please give me any other information that you think might be relevant to evaluating HP's image in the information services market place.

Thank you for your cooperation. Your responses will be kept in strictest confidence and will make a valuable contribution to this study.

APPENDIX B

STUDY PROPOSAL

HEWLETT-PACKARD IMAGE STUDY

For: McCANN-ERICKSON

BACKGROUND AND OBJECTIVES

A. Background

McCANN-ERICKSON, one of the leaders of the advertising industry, is seeking information on Hewlett-Packard's position in the information systems and services industry. In particular McCANN-ERICKSON would like to gain a better understanding of HP's overall image and how it is perceived by its customers and competitors in the various information technology and services markets it serves. To support McCANN-ERICKSON in obtaining the best information available the agency is considering engaging a market research and consulting firm with specialized knowledge in HP's industry group, and has asked INPUT to propose an approach.

INPUT proposes a two phased approach with the following specific objectives and scope.

B. Objectives & Scope

1. *Phase I - Generation of an Industry Competitive Profile*

INPUT will prepare from its existing database of information on HP and its competitors a written profile of HP and the business of its five major divisions. The profile will briefly outline the products and services provided, major competitors for its various lines of business, and INPUT's assessment of HP's image in these businesses based on its familiarity with HP's markets, customers and competition.

To wrap-up *Phase I* INPUT will deliver a 1/2 day session to review the profile, and discuss with McCANN-ERICKSON areas where additional information might be required. In addition, at this session, INPUT will present background information on the markets and competition in the various industry groupings in which HP participates.

2. *Phase II - Field Research - HP's Image*

Based on the results of *Phase I*, INPUT will develop, with McCANN-ERICKSON, an interview vehicle for field research. Utilizing INPUT's knowledge of the appropriate contacts in the industry, INPUT will conduct a 20 - 30 interview survey to gather information on HP's corporate image. Interviews would be split between domestic and international interviews (2/3 to 1/3). Results of this survey would be tabulated and analyzed to provide McCANN-ERICKSON with more detailed information relevant to gaining an understanding of HP's image.



Depending on the results of this initial survey INPUT could extend the research study to focus in on HP's specific business units. Most likely this phase would involve the development of specific interview vehicles for each major business/market area. INPUT believes that with its knowledge of the industry these more detailed studies could be conducted with between 15 and 20 interviews each. They would provide specific information on HP's image in specific market areas which would be useful in formulating an overall view of HP.

DELIVERABLES

1. *Phase I - Generation of an Industry Competitive Profile*
 - Current profile of HP including information previously described.
 - On-site meeting to present profile and define further information needs.
2. *Phase II - Field Research - HP's Image*
 - Written report including a discussion of methodology, analysis, results and recommendations.
 - On-site meeting to review results.

FEES AND SCHEDULES

A. Fees

INPUT's total fee for *Phase I* is \$5,000 payable upon authorization. The high level field research study proposed in part one of *Phase II* is estimated at \$12,500; and the more in-depth studies of individual businesses will be individually estimated depending upon McCANN-ERICKSON's requirements.

Travel and other incidental costs associated with field research studies (including telephone, reproduction, etc.) will be billed at cost and estimated as part of each study proposal.

- B. **Schedules** - To be mutually determined by McCANN-ERICKSON and INPUT.

QUALIFICATIONS/STAFFING

A. Qualifications

INPUT is well qualified to assist McCANN-ERICKSON in providing the desired information. As a leading market research and consulting firm to the information services industry, INPUT has 17



years of experience in analyzing markets vendor strategies, user requirements and customer satisfaction.

INPUT's network of key vendors users and industry analysts put it in a unique position to gather the types of information that McCANN-ERICKSON requires to gain an objective assessment of HP's image. And, its existing data base of industry research provides a context for assessment of HP's current positioning.

B. Staffing

This engagement will be under the overall direction of R. Dennis (Denny) Wayson, Vice President and General Manager of INPUT.

DURATION OF THIS PROPOSALS VALIDITY

This proposal will remain valid for a period of 30 days.

AUTHORIZATION

Authorization of this project may be completed by signing and returning a copy of the proposal to INPUT, together with the payment of \$5,000. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to McCANN-ERICKSON.

AUTHORIZED BY:
INPUT

ACCEPTED BY:
McCANN-ERICKSON

Signature

Signature

Name

Name

Title

Title

Date

Date



A Research Proposal

for

McCANN-ERICKSON

HEWLETT-PACKARD IMAGE STUDY

Presented by

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Revision 0.0, July 15, 1992

Property of INPUT



Research Consulting Proposal - July, 15, 1992
HEWLETT-PACKARD IMAGE STUDY
For: McCANN-ERICKSON

BACKGROUND AND OBJECTIVES

415-981-2523

A. Background

As one of the leaders of the advertising industry, McCANN-ERICKSON is seeking to position itself as the sole provider of advertising services to Hewlett-Packard (HP). The relationship between HP and its current advertising firm does little to focus on HP's overall corporate image. Most of the effort is devoted to supporting individual divisions within HP. McCANN-ERICKSON believes that a successful proposal which will motivate HP to change advertising firms will be based on its ability to convince HP that it can deal with its overall image while at the same time providing complementary campaign strategies to support its individual lines of business.

In order to maximize its probability of developing a winning approach, McCANN-ERICKSON is seeking the services of a market research and consulting firm knowledgeable in HP's markets to assist it by providing market intelligence and competitive information key to understanding HP's current position and potential in the market place.

INPUT proposes a phased approach to support McCANN-ERICKSON. Phase I focuses on providing support for the preparation of McCANN-ERICKSON's bid, and Phase II is directed at providing support to the development of the campaign itself. The specific objectives for each phase are described below.

B. Objectives

1. Phase I - Support to McCANN-ERICKSON's Proposal Phase

The overall objective of this phase will be to supply McCANN-ERICKSON with the information necessary to make an informed proposal to HP, while minimizing McCANN-ERICKSON's bidding costs. Specific objectives include:

- Providing McCANN-ERICKSON with current information from INPUT's proprietary data base on HP's current market position in software, services and hardware markets.
- Developing a model of HP's business which could be used by McCANN-ERICKSON as a demonstration of its understanding of HP's complex set of market and competitive relationships.



2. Phase II - ~~On-Going~~ Support for McCANN-ERICKSON's Campaign Development

Assuming that McCANN-ERICKSON proceeds with Phase I and is successful in obtaining the account, the second phase of the relationship would be focused on developing the market and competitive information necessary for McCANN-ERICKSON to build a strong corporate campaign for HP as well as propose and develop campaign strategies for specific divisions. The foundation of this phase would be the model developed in Phase I. During this phase the model would be extended from a conceptual view of HP's business to one which included specific information on each of its businesses with regard to the following:

- Market size and growth rates.
- Key competitors and market structure, including channel information.
- Competing technologies and HP's positioning with regard to these technologies.

SCOPE

The scope of this proposal is limited primarily to supporting McCANN-ERICKSON in its own proposal development for HP. The approach and potential costs of supporting McCANN-ERICKSON in its development of the account are included to demonstrate INPUT's capability to support McCANN-ERICKSON once the account has been won.

METHODOLOGY

1. Phase I - Support to McCANN-ERICKSON's Proposal Phase

To minimize costs, INPUT will utilize existing data from its Vendor Analysis and Market Analysis Programs to prepare an outline of the model discussed above. A presentation will be prepared for the McCANN-ERICKSON executives involved in developing the HP strategy. The presentation would include the following:

- A general overview of the information systems and software markets which HP serves.
- A profile describing HP's positioning in these markets.
- A brief description of key competitors and alliances.
- A presentation and discussion of the model.

As part of this phase INPUT would offer McCANN-ERICKSON the opportunity to attend its annual client conference to be held in San Francisco in early October. The conference is well attended by key marketing executives in the information services industry and would provide McCANN-ERICKSON with the opportunity to interact directly with many of HP's competitors as well as gather relevant information about industry trends and issues useful in the preparation of a campaign for HP.

2. *Phase II - On-Going Support for McCANN-ERICKSON's Campaign Development*

During this phase INPUT will utilize direct field research as well as information from its existing body of research to gather and interpret the information necessary to support the development of specific aspects of McCANN-ERICKSON's HP campaign. Studies would be conducted on an "as needed" basis and would utilize telephone interviews or focus groups depending upon the particular type of information required.

DELIVERABLES

1. *Phase I - Support to McCANN-ERICKSON's Proposal Phase*

- On-site presentation as previously described.
- White paper (5-10) pages describing the model of HP's participation in the Information Services Industry.
- One seat at INPUT's Annual Client Conference.

2. *Phase II - On-Going Support for McCANN-ERICKSON's Campaign Development*

The results of individual field studies whether focus groups or direct field research would be presented in the form of written reports with the following structure.

- Study Objectives
- Methodology
- Research Results
- Analysis and Recommendations

FEES AND SCHEDULES

A. **Fees**

INPUT's total fee for *Phase I* is \$5,000 payable upon authorization. Fees for the individual field research studies proposed in *Phase II* will vary depending on the scope and size of the field research effort required by would likely vary between \$10,000 and \$25,000 dollars each.

Travel and other incidental costs associated with field research studies (including telephone, reproduction, etc.) will be billed at cost and estimated as part of each study proposal.

B. **Schedules** - To be mutually determined by McCANN-ERICKSON and INPUT.

QUALIFICATIONS/STAFFING

A. Qualifications

INPUT is well qualified to assist McCANN-ERICKSON in developing some of the key components of the information necessary to support both the proposal phase and on-going development of a campaign for HP. As a leading market research and consulting firm to the information services industry, INPUT has 17 years of experience in analyzing markets vendor strategies, user requirements and customer satisfaction.

B. Staffing

This engagement will be under the overall direction of R. Dennis (Denny) Wayson, Vice President and General Manager of INPUT.

DURATION OF THIS PROPOSALS VALIDITY

This proposal will remain valid for a period of 30 days.

AUTHORIZATION

Authorization of this project may be completed by signing and returning a copy of the proposal to INPUT, together with the payment of \$5,000. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to McCANN-ERICKSON.

AUTHORIZED BY:
INPUT

ACCEPTED BY:
McCANN-ERICKSON

Signature

Signature

Name

Name

Title

Title

Date

Date



To Our Shareholders

RECEIVED

JUN 11 1992

MOUNTAIN VIEW

The company made progress in improving its financial performance in 1991 despite a difficult economic environment in many regions of the world. Net revenue grew 10 percent over 1990 to \$14.5 billion, and profits from operations grew 4 percent. Pretax earnings were up 7 percent and net earnings increased 2 percent over last year.

These results reflect the impact of special charges we took in the fourth quarter. We spent approximately \$150 million to implement Voluntary Severance Incentive (VSI) and Enhanced Early Retirement (EER) programs under which 8,300 people decided to leave the company, as well as for related facility consolidations and closures. Without these charges, profits from operations would have risen 15 percent, pretax earnings would have grown 21 percent and net earnings would have increased 16 percent over 1990.

Orders grew 9 percent over 1990 to \$14.7 billion, and net earnings improved to \$755 million from \$739 million last year. Net earnings per share were \$3.02 in 1991 compared to \$3.06 in 1990, with an average of 250 million shares outstanding in 1991 compared with 242 million last year. The impact of the fourth-quarter special charges on net earnings per share was approximately 40 cents.

Business Environment

HP achieved these results in an increasingly challenging business environment. Many countries in which we operate, including the United States, experienced sluggish growth or recession in 1991.

Overall growth has slowed in the electronics industry in recent years. A decline in U.S. capital spending and overcapacity in the computer industry, as well as reduced defense spending, are key factors in this slowdown.

While growth is slowing, shorter product life cycles, a greater number of competitors and the movement to "open" or non-proprietary information systems are intensifying competition in our businesses.

Customers are also demanding greater returns on their computing and measurement investments. In addition, these customers are choosing to buy more products from a variety of value-added resellers, to whom HP grants higher discounts for the sales function they perform. This lowers the selling price and increases HP's cost of sales as a percentage of net revenue, an increase that underscores the need to control operating-expense growth.

HP Product Orders
By year introduced



This graph illustrates the key role new products play in HP's growth. Each bar indicates the year's total product orders, with the top section of each bar showing orders for those products introduced in that year. More than half of 1991's orders were for products introduced in the past two years.



HP's Response

We believe that this environment, while challenging, offers real opportunities for HP. Our product strength and diversity, technology leadership, financial stability and global presence are powerful differentiators.

Early identification of emerging customer needs and outstanding products are required in order to increase revenue in a slow-growth economic environment. We've focused on anticipating opportunities in our businesses, including open systems, RISC (reduced-instruction-set computing) technology and mobile communications in computing, non-impact printing in computer peripherals, telecommunications and semiconductor testing in test and measurement, patient information systems in medical products and environmental markets in analytical instruments.

Key products introduced this year included our RISC-based Series 700 workstations, the HP 95LX palmtop personal computer, the HP SONOS 1500 echocardiograph system and the HP DeskJet 500C printer. Our ability to increase revenue during 1991 demonstrates our success at developing products such as these that meet customer needs.

However, improving profits also requires us to make organizational adjustments and control costs. During the year we continued consolidations in manufacturing and administrative activities and reduced the amount of space we lease. This year's VSI and EER programs are an example of ongoing efforts to adjust costs to levels required for success in today's environment. These initiatives helped us keep the growth of core operating expenses below the rate of net revenue growth and thus achieve modest profit improvement.

Investing in the Future

We recognize the importance of balancing our efforts to improve effectiveness and reduce costs with the need to make sufficient investments for future success. In 1991 we invested approximately 10 percent of net revenue, nearly \$1.5 billion, in research and development. In 1990 and 1991, more than half of HP's orders were for products introduced in the past two years, strong evidence of our ability to apply new technology to customer needs.

In addition, initiatives this year in Singapore, Czechoslovakia, Hungary, India and Russia increased our opportunities for future growth. These new ventures



Our product strength

and diversity, tech-

nology leadership,

financial stability

and global presence

are powerful

differentiators.

David Packard





*We recognize the
importance of balancing
our efforts to
improve effectiveness
and reduce costs with
the need to make
sufficient investments
for future success.*

John Young

continue HP's longstanding effort to get into position early in emerging markets. With orders from outside the United States comprising more than half of HP's total, this effort has clearly paid off.

In November 1991 we acquired Avantek, Inc., a company whose product line expands and complements that of our Components Group. We believe that the acquisition will strengthen our business in radio- and microwave-frequency semiconductors and components.

We've also improved a wide range of internal processes, such as order fulfillment, product generation and software development, which are crucial to our ability to improve productivity, get products to market quickly and stay flexible as customer needs evolve.

Other News

During 1991 the Board of Directors authorized the allocation of \$500 million for the repurchase of the company's common stock to meet the needs of employee stock programs. In addition, Thomas E. Everhart, president of the California Institute of Technology, joined the Board in July.

Executive vice presidents Richard Alberding and John Doyle retired this year after distinguished careers in which they made major contributions to HP's growth and success.

Business Outlook

Our principal goal for 1992 remains the improvement of financial performance. Although the business environment continues to be difficult, we are encouraged by the results of efforts to realign our cost structures and by the market response to our new products. We believe that these outstanding products, as well as our global presence, streamlined organization and continued emphasis on expense controls, position us well to capitalize on emerging opportunities.

David Packard
Chairman of the Board

John Young
President and Chief Executive Officer

December 12, 1991



THE DATAMATION 100

PROFILES 1-25

3

cessor on the market last year. Digital plans eventually to introduce Alpha-based systems ranging from palmtops to supercomputers. The systems will run not only VMS and OSF/1 but also Microsoft Corp.'s NT operating system, in a move designed to appeal to millions of existing DOS and Windows users.

Digital won't make the chips available in volume until late this summer and won't introduce Alpha systems until later in 1992. The company can't gain significant Alpha revenues until 1993 or even 1994, and thus, this year's financial performance is unlikely to change dramatically. And, while analysts laud the Desktop Direct program, low profit margins on PCs are unlikely to drag Digital out of its financial swamp.

In fact, Digital sank deeper into the financial abyss this year, announcing a shocking \$294.1 million loss for the first quarter of calendar 1992, prompting analysts to forecast thousands more layoffs. Digital officials themselves say they don't expect financial performance to improve this year. Still, executives manage to convey high hopes that the next generation of technology will turn the company around. Says Johnson: "As a strategic product for the future, Alpha will be to Digital what the VAX was in the '80s."

—Eloise L. Appleton

multiuser UNIX systems and the introduction last year of new, aggressively priced workstations, HP managed to increase its IS equipment and services revenues enough to overtake Unisys Corp. and become the third largest North American vendor.

Although the worldwide recession curtailed what in 1990 had been rapid HP revenue growth in Europe, the company managed to report a 12.7% increase in computer-related revenues to \$10.73 billion for 1991. And overall corporate profits rose a healthy 11% to \$858 million, a far cry from the previous year's 11% drop.

"We've now moved into the No. 3 position as a computer company.... So now we can set our sights on No. 2," proclaims HP Computer Systems organization executive vice president Lew Platt.

Catching up with long-time rival Digital Equipment Corp. won't be easy. But the company did manage to continue its momentum into early 1992, growing computer revenues 17.8% and corporate net earnings by a surprising 49% in the first fiscal quarter, ending January 31.

Fueling HP's 1991 growth, as it has for several years, was the company's desktop printer business. HP started shipping its new LaserJet III in volume early in 1991, and already the product has captured a 75% market share, according to the La Jolla, Calif.-market research firm Computer Intelligence.

The multiuser UNIX business also continues to be a winner for HP. Platt says revenues from those products grew over 50% in 1991, following a 80% growth rate in 1990. Strong price/performance derived from improvements in HP's reduced instruction set computing (RISC) processor, plus industrywide interest in UNIX, has helped attract new users such as ITT Sheraton Corp., which is building a \$14 million reservations and property management system around the HP 9000 series 800 UNIX midrange system.

Key new product moves helped HP stem market share losses it had been suffering in the UNIX workstation business. HP jumped to the front of the workstation pack in March 1991 when it introduced the HP Apollo 9000 series 700 workstations and servers, which offered an eye-popping price/performance of \$1,000 per SPECmark. The announcement prompted key ISVs such as electronic design automation software vendor Cadence Design Systems Inc. and Lotus Development Corp. to announce plans to port their applications to the new HP workstations.

HP also made a successful push in 1991 to have several of its key products and technologies adopted as emerging industry standards. Many of the object management technologies pioneered in HP's NewWave graphical user interface were adopted as standards by the Object Management Group in 1991. And HP had similar success with its OpenView UNIX network management and Softbench CASE-integration technologies. Late in 1991, HP even moved to bring its proprietary MPE minicomputer operating system into the open systems world with a POSIX shell, which ships this month.

Going into 1992, HP's goals were little changed from those of a year earlier: improve overall financial results, achieve market share leadership in workstations and multiuser UNIX systems and push to have HP technologies adopted as standards. HP will also continue to squeeze better performance out of its PA-RISC architecture, Platt says. In addition to applying that increased power to its workstation line, HP plans to introduce larger symmetric-multiprocessing versions of its MPE/IX and multiuser UNIX systems, moving well into the mainframe performance area. As HP does so, Platt says, the company recognizes it will have to focus on developing technologies and service offerings that will allow it to coexist with mainframes.—Jeff Mead

IS Revenue \$10.73 Billion

NEW YORK

HEWLETT-PACKARD CO.
3000 Hanover Street
Palo Alto, CA 94304
(415) 857-1501

Unlike many of its competitors, Hewlett-Packard Co. emerged from 1991 on something of a roll.

In fact, thanks to continued strength in its desktop-printing and

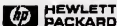
NORTH AMERICAN COMPANIES

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News

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MOUNTAIN VIEW

HP SECOND-QUARTER NET EARNINGS UP 40% ON NET REVENUE INCREASE OF 12%

PALO ALTO, Calif., May 18, 1992 -- Hewlett-Packard Company (NYSE: HWP) today reported 40 percent growth in net earnings, a 32 percent increase in earnings from operations and a 12 percent increase in net revenue for the 1992 fiscal year's second quarter, which ended April 30. Orders grew by 11 percent over the second quarter of fiscal 1991.

Net earnings for the quarter were \$326 million, or \$1.28 per share on an average of 254 million shares of common stock outstanding. This compares with net earnings of \$233 million, or 93 cents per share on an average of 250 million shares during the second quarter of fiscal 1991.

Net revenue totaled \$4.2 billion, compared with \$3.7 billion for the second quarter of fiscal 1991. Net revenue from equipment sales and service in the United States was \$1.8 billion, up 14 percent from the year-ago quarter. Net revenue from outside the United States rose 11 percent to \$2.4 billion.

Orders for the quarter were \$4.2 billion, compared with \$3.8 billion in the second quarter of fiscal 1991. U.S. orders totaled \$1.8 billion, up 16 percent over 1991, while orders from outside the United States grew by 8 percent to \$2.4 billion.

"We're quite pleased with our earnings this quarter," said John A. Young, HP president and chief executive officer. "We turned a reasonable revenue increase into outstanding profit growth, thanks to our ongoing efforts to manage expenses."

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Young described the company's 11 percent growth in orders as a good achievement in light of generally sluggish economic conditions worldwide. He attributed this growth to excellent acceptance of the company's newer products.

He noted that orders for both laser and inkjet printers were up sharply during the quarter, and that the company's mass-storage products showed a healthy increase in orders. Order growth for the company's UNIX*-based multiuser systems was excellent. Workstation orders increased moderately, with the RISC*-based Series 700 and X terminals showing strong improvement.

Test-and-measurement (T&M) orders declined slightly year-to-year. Within that business, the company's focus on high-growth segments, such as telecommunications-test equipment, is helping to offset the continuing slowdown in traditional T&M markets.

Cost of goods sold as a percentage of net revenue was 53.5 percent, compared with 53.6 percent in the second quarter of 1991. Operating expenses for the quarter grew 7 percent over the year-ago quarter. As a percentage of net revenue, operating expenses were 34.9 percent, compared with 36.6 percent in the second quarter of 1991 and 34.6 percent in the first quarter of 1992.

Six-month review

For the six months ended April 30, net earnings increased 44 percent to \$632 million, compared with \$438 million in the first half of 1991. Net earnings per share totaled \$2.49, an increase of 41 percent over the \$1.76 earned during the comparable period of 1991. There was an average of 253 million shares of common stock outstanding during the first half of fiscal 1992, compared with 248 million during the same period a year ago.

Net revenue increased 13 percent over the first half of 1991 to \$8.0 billion. Net revenue from equipment and service in the United States was \$3.4 billion, an increase of 14 percent over the same period a year ago. Net revenue from outside the United States grew 12 percent to \$4.6 billion.

Orders for the six-month period were \$8.4 billion, up 12 percent from the first half of 1991. U.S. orders totaled \$3.6 billion, an increase of 16 percent, while orders from outside the United States were \$4.8 billion, an increase of 10 percent over 1991's first half.

- more -



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"Overall, we're pleased with our performance in the first half of the year," Young said. "Our employees have worked hard and have shown great flexibility under difficult circumstances. They deserve the credit for HP's improved results."

Business outlook

Young said that the business environment remains very challenging. "We are concerned about the near term because of uncertainty over the U.S. recovery as well as sluggish conditions in some key economies around the world," he said. Young noted that HP's order growth in Europe has slowed, and orders in Japan declined for the second quarter in a row.

Despite these uncertainties, Young believes that HP is in an excellent competitive position. "We have outstanding product momentum that we'll build on in the second half of the year," he said. "We'll remain focused on managing expenses and bringing products to market quickly. Our goal is to sustain our improved financial performance even in a difficult environment."

Hewlett-Packard Company is an international manufacturer of measurement and computation products and systems recognized for excellence in quality and support. The company's products and services are used in industry, business, engineering, science, medicine and education in approximately 100 countries. HP has 90,000 employees and had revenue of \$14.5 billion in its 1991 fiscal year.

*UNIX is a registered trademark of UNIX System Laboratories in the U.S.A. and other countries.

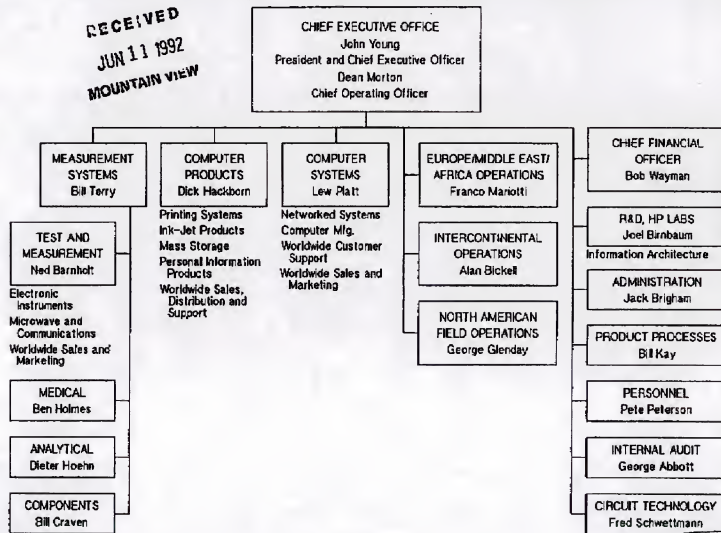
*RISC stands for reduced-instruction-set computing.

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HP Corporate Organization

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MOUNTAIN VIEW





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MARKETLINE

AN INVESTOR'S GUIDE TO WHAT'S HAPPENING IN THE MARKETS

Hewlett-Packard continues to rise

Hewlett-Packard, the Palo Alto, Calif.-based maker of midrange computers, is on a roll. Thursday, H-P shares hit another 52-week high and closed up $2\frac{1}{4}$ at \$81 $\frac{1}{2}$. Investors say the company has made all the right moves in the fiercely competitive computer market, including taking a 5% stake in Convex Computer, a fast-growing maker of supercomputers. That move also was announced Thursday. The agreement calls for the two companies to share technology.

Two analysts recommended H-P on the heels of the announcement. H-P received a reiterated buy recommendation from Goldman Sachs analyst John Levinson. H-P also was recommended by Alex.

STREET TALK

Brown & Sons analyst Joe Payne. H-P's acquisition of workstation maker Apollo in 1990 has turned out to be a rare success in the high-tech field. H-P's workstations, which feature advanced reduced-instruction technology, are some of the fastest machines around. Meanwhile, Convex's superfast computers could give H-P an edge over competitor Cray Research.

Hewlett to Post 3rd-Period Net Below Estimates

Analysts Expect Stock Price To Drop Sharply Today In Reaction to Statement

By STEPHEN KREIDER YODER

Staff Reporter of THE WALL STREET JOURNAL
Hewlett-Packard Co., feeling the pain of the slow world economy after a string of healthy quarters, said it expects to report that net income in its fiscal third quarter fell well below analysts' estimates.

The Palo Alto, Calif., computer company said that, based on its early estimates, earnings for the quarter ended July 31 could range from "about equal" to the 76 cents a share it reported a year earlier to 15% higher, or about 87 cents a share. Analysts' estimates for the third quarter averaged about \$1.12 a share. In the 1991 quarter, H-P reported net income of \$192 million on revenue of \$3.52 billion.

The surprise news is expected to send H-P's stock sharply lower today. The stock closed at \$71.50, down 87.5 cents, on the New York Stock Exchange yesterday. H-P will report results Aug. 18.

The unexpectedly sluggish results contrast with earlier showings this year by H-P, which surprised Wall Street by racking up earnings gains of 49% and 40% in the previous two quarters, despite a generally profit-starved computer industry. Early in the year, the company's profit margins benefited from staff reductions and other expense controls taken in 1991, while sales of its computers and printers remained relatively strong.

But H-P said yesterday that weak capital spending among its electronic-equipment customers has begun to hurt it, particularly in areas such as its test-and-measurement equipment and parts of its computer business. "We're seeing uneven demand across our businesses," said John A. Young, president and chief executive officer, in a statement.

The company, which sells a broad range of computers, wouldn't say which particular computer markets were weak. An H-P spokesman said the company also couldn't say in which geographical markets the weakness was. But Mr. Young and other H-P executives said earlier this year that sluggish economies in Japan and Europe were worrisome. "The problem appears to be more international than domestic," said analyst Robert Herwick of Hambrecht & Quist.

While an H-P spokesman characterized the factors behind the earnings disappointment as "cyclical as opposed to structural," analysts said attention will now

Postal Chief Seen To Seek Reduction In the Work Force

By ALBERT R. KARR

Staff Reporter of THE WALL STREET JOURNAL
WASHINGTON — Postmaster General Marvin Runyon is expected to announce a Postal Service plan to seek a work-force reduction of about 40,000 by encouraging voluntary early retirements.

The plan would involve a restructuring of the agency's management apparatus, including cutbacks in staffing at Postal Service headquarters, agency officials said. The announcement is expected as

early as today. Mr. Runyon, who became postal chief a month ago, came from the Tennessee Valley Authority, where he trimmed management layers and reduced employment nearly 40% as TVA chairman.

He told the postal board of governors at its meeting in San Francisco this week that the agency began a four-month process July 13 aimed at "improving the quality and competitiveness of this organization." This includes goals of "reducing bureaucracy and streamlining our processes," along with boosting service quality and stabilizing postal rates by eliminating a \$2 billion deficit that has been projected for the fiscal year ending Sept. 30, 1993, Mr. Runyon said.

He said postal "work teams" are studying steps such as reducing redundant jobs among "postal overhead, the people who 'don't touch the mail,'" and other options

Xerox put together that knows how

Xerox sponsored the Team Xerox Olympians to year's U.S. Olympic Team put together the best group of 12 U.S. Olympic medalists traveled through America to raise the funds U.S. athletes needed to compete. Their efforts helped send hundreds of dollars best to the '92 Barcelona Games.

What's more, as the Official Document Processor of the USOC and the U.S. Olympic Team, our team professionals will be processing and distributing of over 200 Olympic events. In fact, virtually all the



and ink-jet printers are extremely popular with PC users and represent one of H-P's fastest growing businesses. But profit margins on printers are much smaller than on slower-growing traditional H-P products such as computers and test equipment. While H-P has based its strategic plans on a continued shift toward high-volume products with low profit margins, it hadn't counted on that shift happening as quickly as it has.

As a result of the weakness in older-line businesses, "we expect that this quarter's revenue mix will adversely affect our gross margins," Mr. Young said, adding that H-P needs "to get our capacity and expense structures more closely aligned with demand in some areas." In past years, H-P has used holiday closings and mandatory time off to iron out cyclical slumps in orders. "We're not talking layoffs," said a spokesman.

Intellicall Inc. Obtains Revised Agreements That Apply to Loans

By a WALL STREET JOURNAL Staff Reporter

DALLAS — Intellicall Inc. said it entered into amended loan agreements that eliminate previous covenant defaults, establish new loan covenants and revise payment terms.

The amended agreements provide for seven quarterly principal payments of \$2 million each, beginning Oct. 31, with the remaining balance due June 30, 1994. They also provide for certain scheduled prepayments, with penalties for any failure to prepay. As of June 30, the loans had a total principal balance outstanding of \$40 million: \$8 million under a senior note, \$32 million under a bank loan.

The troubled pay-telephone company, which had been in default on about \$55 million in debt in recent months, also said it has completed its revised annual report and Form 10K for 1991, and will file the report today. The company added that it expects to report losses for the first two quarters of this year, and will file quarterly reports within the next few weeks.

For the fourth quarter of 1991, Intellicall reported a net loss of \$6 million, or 90 cents a share, on revenue of \$51.7 million. Earlier, it had reported net income of \$1 million, or 16 cents a share, for that period. The restated figures compare with net income of \$2 million, or 30 cents a share, on revenue of \$58.1 million for the year-earlier period.

The company reported a net loss of \$4.7 million, or 70 cents a share, on revenue of \$200 million for all of 1991. Originally, it had reported net of \$2.4 million, or 35 cents a share. The restated figures compare with net of \$7.6 million, or \$1.10 a share, on revenue of \$207.3 million for 1990.

Earlier this year, Intellicall suspended and then dismissed four top executives that it said failed to disclose the default problems; one of those four, Thomas A. Floerchinger, is suing the company, alleging wrongful termination.



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Hewlett-Packard Co. Color Printers for PCs To Be Unveiled Today

Staff Reporter of THE WALL STREET JOURNAL
PALO ALTO, Calif. — Hewlett-Packard Co. plans to unveil today a line of color printers that will allow personal computers to print near-photographic images.

The new line, called the Paintjet XL300, is part of H-P's strategy of increasing its already large share of the computer-printer market by introducing color-printing technology to a broad range of computer users that mainly buy monochrome printers today. The new printers, with list prices starting at \$3,495, are aimed at businesses, said Richard Belluzzo, H-P vice president.

The XL300 joins H-P's popular family of printers that use "inkjet" technology, in which print heads spray microscopic dots of ink onto paper. H-P's low-end monochrome inkjet printers, about \$700, are quickly grabbing market share from Japanese makers of "dot-matrix" printers that use traditional typewriter-style ribbons.

H-P's new machines use Intel Corp.'s 960 microprocessor as their "brains" to speed up printing. The machines operate with the same set of commands and add-on accessories as H-P's laser printers, which dominate the market for laser printers, and can easily be tied into computer networks. Unlike H-P's low-end inkjet machines, which must be purchased in versions for either Apple Computer Inc.'s Macintosh machines or PCs using Microsoft Corp.'s MS-DOS operating system, the XL300 printers work with both.

H-P also plans to unveil new facsimile machines that use plain paper, as opposed to most fax machines today, which use expensive special paper.

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Mr. Lastinger then led a Bai
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that Barnett coveted: a \$4.5 billion
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At daily meetings with senior Bar-

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s making sure the assump-
were rational and objective, and
driven by ego or emotions," said
the 49-year-old Mr. Lastinger, a for-
mer naval air intelligence officer.

The deal has sparked a range of
emotions on Wall Street, however.
While some analysts say the banks fit

well together, others say
da's price tag — 2.4 times
or roughly \$800 million — is
high side. Barnett's stock ap-
reflect that concern, closing F
at \$35.625, down from \$39.25 bei
the merger announcement.

Mr. Lastinger defends the acq-
tion price, promising Barnett can
save \$66 million in noninterest ex-
penses in 1993, in part by closing up to
100 branches in shared markets.

Hewlett Tries Some Mainframe Magic

SAN FRANCISCO

THE list of minicomputer manu-
facturers that have entered the
mainframe market is a short
one, and with good reason: most that
have tried have failed. Undaunted,
the Hewlett-Packard Company an-
nounced its first mainframe-class
machines last week.

Lewis E. Platt, Hewlett-Packard's
executive vice president and general
manager of the computer systems or-
ganization, said the new machines of-
fered performance comparable to an
I.B.M. 3090, but for one-tenth the cost
and at one-tenth the size. The ma-
chines achieve this performance
breakthrough with the use of re-
duced-instruction-set computing, or
RISC, which speeds things up by re-
legating many common tasks to soft-
ware.

"RISC technology has allowed us to
do some very compelling things,"
said Mr. Platt, who is 51 and consid-
ered a leading candidate to succeed
John A. Young as chief executive at
the company, which is based in Palo
Alto, Calif.

Mr. Platt said the new machines
were aimed primarily at traditional
mainframe customers who are con-
sidering "downsizing," industry jar-
gon for moving applications to small-
er, more cost-effective computers.

According to Dataquest Inc., a
market research firm in San Jose,

Calif., more than 46 percent of main-
frame users are considering downsiz-
ing. Because the new machines can
run all the software written for Hew-
lett-Packard minicomputers and
work stations, current customers are
also a major market opportunity, Mr.
Platt said.

That software base is a significant
reason that Hewlett-Packard can suc-
ceed where others failed, Mr. Platt
said. The Digital Equipment Corpora-
tion "made a big mistake because it
rolled out a piece of hot hardware, but
there was no networking capability,
no software," he said.

Priced from about \$335,000 to
\$925,000, the new computers will be-
gin to be shipped in August. Contrast-
ed with a room-filling, liquid-cooled
mainframe, the Hewlett-Packard
machines are about the size of a re-
frigerator and are air-cooled. Compa-
nies that have already begun moving
applications from mainframes to
Hewlett-Packard's machines include
3M, GTE Telephone Operations and
ITT Sheraton.

LAWRENCE M. F...



Lewis E. Platt

Hewlett-Packard Forms Group to Promote Its Chips

By a WALL STREET JOURNAL Staff Reporter

PALO ALTO, Calif.—Hewlett-Packard Co. said it formed an association with eight other companies to promote the use of H-P's microprocessor chips and to create standards for using the chips in electronic equipment.

In forming the group, called the Precision Risc Organization, H-P follows the lead of competitors that are attempting to rally electronics companies around their own chips. H-P rivals, such as Sun Microsystems Inc., MIPS Computer Systems Inc. and Motorola Inc., already have formed alliances to promote their chips, to set standards and to encourage software houses to write programs for computers using their chips.

H-P and its rivals are battling for market share with a new breed of microprocessors that use a set of technologies collectively called reduced-instruction-set computing, or RISC. RISC chips are increasingly popular among computer makers because they can process information far faster than many chips built by conventional methods.

H-P's new alliance includes companies already committed to making or using H-P's Precision Architecture processor, a chip H-P uses in its most popular workstations. Along with H-P, the group's members are U.S. companies: Convex Computer Corp., Hughes Aircraft Co., Prime Computer Inc. and Sequoia Systems Inc., along with Japan's Mitsubishi Electric Corp., Hitachi Ltd., Oki Electric Industry Co. Ltd. and Yoko-gawa Electric Corp.

Chair,
FYI
Tom

U S

MARKETLINE

AN INVESTOR'S GUIDE TO WHAT'S HAPPENING IN THE MARKETS

Hewlett-Packard continues to rise

Hewlett-Packard, the Palo Alto, Calif.-based maker of midrange computers, is on a roll. Thursday, H-P shares hit another 52-week high and closed up $2\frac{1}{4}$ at \$81 $\frac{1}{2}$. Investors say the company has made all the right moves in the fiercely competitive computer market, including taking a 5% stake in Convex Computer, a fast-growing maker of supercomputers. That move also was announced Thursday. The agreement calls for the two companies to share technology.

Two analysts recommended H-P on the heels of the announcement. H-P received a reiterated buy recommendation from Goldman Sachs analyst John Levinson. H-P also was recommended by Alex Brown & Sons analyst Joe Payne.

H-P's acquisition of workstation maker Apollo in 1990 has turned out to be a rare success in the high-tech field. H-P's workstations, which feature advanced reduced-instruction technology, are some of the fastest machines around. Meanwhile, Convex's superfast computers could give H-P an edge over competitor Cray Research.

STREET TALK

Hewlett-Packard Is Too Busy to Notice Industry Slump

Computer Maker, Now Slimmer, Is More Nimble in Pursuing Business

By STEPHEN KREIDER YODER

Staff Reporter of THE WALL STREET JOURNAL
The computer industry is in a slump, but Hewlett-Packard Co. doesn't seem to have noticed.

For one reason why, just visit a personal-computer store. While PC sales lag, an HP printer called the Deskjet is so popular that many stores keep waiting lists. Sales of the machine, the world's best-seller by some accounts, are so heavy at the MicroAge computer store in San Francisco that it keeps its inventory stacked high in its small storefront.

HP's computer business is just about as healthy. The once-stodgy matriarch of Silicon Valley is expected to gain market share in workstations this year after a seamy-year slide. And it increased sales 25% last year in minicomputers, the old-line machines whose dwindling market growth plagues H-P's big rivals.

The impact: 53-year-old H-P's net income shot up 49% to \$36 million in the quarter ended Jan. 31 from the year-ago quarter. And many analysts expect the Palo Alto, Calif., company to report a 40% jump in net income for the quarter ended April 30. H-P's stock trades at just over \$80, up 45% this year and 168% above its January 1991 low.

Not bad for a company that two years ago was considered a torpid dinosaur among free-fleeted little predators. Since then, H-P has converted itself into a company that can profit in markets where profit margins are rapidly shrinking. It has turned out a rapid fire of new products, cut prices even in markets it dominates, and skillfully exploited new high-value discount retailers. Meanwhile, it has slashed costs, cutting its staff to about 89,000 from 94,000 two years ago.

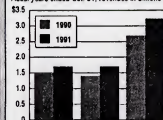
HP "is the first of the big computer companies to have successfully repositioned itself to compete in the new computer environment of the 1990s," says Salomon Brothers Inc. analyst John Jones.

In that new environment, corporations want to string together scores of inexpensive machines—which bring smaller profit margins—rather than the few large mainframes and minicomputers that once dominated computer rooms. And computer buyers increasingly shop mall order and at supermarket-style computer stores.

The old H-P wouldn't have done well in this scene. In 1990, H-P's costs were bloated. It didn't have competitive computers and it took too long to develop new products. Even its hot sellers, such as laser printers, were hampered by bloated layers

Key Markets Grow...

Fiscal years ended Oct. 31; revenues in billions



Source: Standard & Crenshaw & Co.

...Net Income Bounced Back

In billions of dollars



of management that stymied new marketing strategies.

But a series of changes at H-P, culminating in a sweeping management reshuffling in late 1990 orchestrated by Chief Executive John Young, has given the company a new nimble touch. Among H-P's far-flung businesses, the impact on H-P's computer business has been the most dramatic. Under the direction of Executive Vice President Lewis Platt, H-P's computer divisions introduced a barrage of new workstations last year that were faster and cheaper than rivals'. Workstations are powerful computers traditionally used by engineers, but now increasingly used by businesses. H-P's share in workstations is growing for the first time in years, says market-research firm International Data Corp., which estimates that the company will hold a 17.4% share this year, up from 16.3% last year.

Now, "H-P is much more aware of how it needs to change its business model as the market changes," says Roel Pieper, president of UNIX System Laboratories Inc., which sells operating systems for workstations. "No one can ignore it."

H-P even managed to increase sales last year. In minicomputers, the machines that traditionally power many businesses but have begun falling out of favor. While a lagging market for such machines, now often called "multi-user" systems, has hurt companies such as Digital Equipment Corp. and International Business Machines Corp., H-P says its sales grew about 25% last year. "H-P has displaced DEC as the primary displacer of IBM," says analyst Robert Herwicz of Hambrecht & Quist.

Meanwhile, another H-P executive vice president, Richard Hackborn, has staged a lucrative comeback in a market that was largely ceded to the Japanese in the 1980s, the one for computer printers. H-P's big star is a little printer called the Deskjet 500 that sells for about \$400 and became the world's best-selling printer last year, according to BIS Strategic Decisions, a market-research firm specializing in printers.

The printer, which uses so-called inkjet technology to produce high-quality printouts, is quickly eating into the Japanese-dominated market for dot-matrix printers, which are noisy and can't print crisp text or drawings. Demand is so high that H-P plans to rent a factory building in Washington state to set up a new factory line. A new color version is also a hit.

Instead of milking bigger profit margins from its printers, the company is taking a Japanese-style tack of using its economies of scale to rapidly lower prices to grab and maintain market share. That tack has worked well for H-P's other printer line, laser printers, which still command a 56% share of the U.S. laser-printer market and helped make H-P the world's largest printer seller last year according to BIS, the research firm.

"Every time it appears someone is going to catch up they move proactively with new price points or new engineering," says William Tausscher, chief executive officer of ComputerLand Corp., a computer-store franchisor and a big H-P customer.

While key sales are increasing, H-P has been cutting costs. It closed a Swiss admin-

istrative operation, for example, saving \$3 million a year, and it got rid of 3.5 million square feet of floor space, or 10% of its total. Most important, H-P cut employment while revenues rose, reversing a years-long increase in the ratio of selling costs to revenue. After taking a \$150 million write-off last year to cut staff, "we've got the people issue under control," says Chief Financial Officer Robert Wayman.

Such cuts helped boost H-P's operating-profit margins to 12% in its second quarter, compared with 9.8% in the year-ago quarter, estimates analyst Barry Wilman of Sanford C. Bernstein & Co. H-P won't comment on second-quarter results, which it will report May 18.

Of course, fortunes are often short-lived in electronics, and H-P's executives are typically cautious — some say overly cautious — about the company's good times. "We've been on a roll; most of the things we've done have been right," says Mr. Young. "It won't last—it never does."

A big worry is economic sluggishness in Japan and Germany, where H-P does its biggest block of foreign sales, which made up about 56% of H-P's \$14.4 billion in revenues last year, says H-P's Mr. Young. H-P's test and measurement equipment business, once its bread and butter, is also sluggish, he adds.

What's more, H-P will face powerful new rival computers over the next year. Japan's Canon Inc. and others have promising new inkjet printers. Companies such as Seiko Epson Corp. are eating away at H-P's low-end laser printers. Apple Computer Inc. plans palm-top computer devices that could challenge H-P's palm-top PC, the 950LX, that now has the market to itself.

Still, H-P has new products in the pipeline to generate new revenue and keep pace with computer rivals. H-P will introduce laser printers with color, finer printing abilities and lower prices, and it will use its printer technology to push into new markets such as fax machines. The company plans to market new versions of the palm-top PC for consumer uses.

For now, one of the biggest issues facing H-P is the question of succession. Mr. Young, 60 years old, has held the chief-executive post for 10 years and says he will retire before age 65. Most odds are on two heirs apparent: Mr. Platt, the 51-year-old chief of H-P's old computer division, and Hackborn, 54, who oversees H-P's high-volume products such as printers, PCs and hand-held computers.

WSJ 5/10
File HP

OB's

①

~~didn't do much better 2nd test~~

Intel.com

Use SAP's SAPNet
ShareNet

High Quality

Conservative

No Real Vision for future

good products product company not service or solution

engineering work station

TECH. leaders etc

prod. mktg. orientation

JAPAN - Europe

really pushing prod. env.

high speed work station

price perf. of prod.

HP performance

faster & better prices

biggest engine in lightest

PBM

comp

- employees
- services & evolution
- HP 95 very innovative only comp. is Sharp

Range of technology

digital & analog } all performance

Digital & TBM perf. & service

Conservative image is enswearmt → mix west exch

Apple comp. needs → wild people

- Str. entraced

- Not risky

- Solid, pure execution

No hierarchical

2

Technical ^{Engineering Environment} Areas

No one would consider them as.

Not thought of in services & weak

Europe & Japan Not image of Digital

Digital emphasized Europe more & vice versa

Not good image → just not a player
More player in Europe

2ND tier

Components &

OEM

Customer Satisfaction Survey

Consumer

- high level of satisfaction
- Laser Printers
- H-P as printer supplier rather than mythical

1) Printers

2) Scientific Work Stations

3) Hand Held calculators

NOT THINK OF SOME WAY AS A:

Digital, IBM or UNISYS

How did H-P come to be leading product comp
and Workstations & lost it

(3)

Appaco Work Station only successful

Vary attitudes around Wiers

Downsizing in U.S. is deal / Japan doesn't
Eur. 1 yr. demand
Syn. exist-
demand

Out Sourcing new, sweeping incl. U.S. alt. &
Desktop Services

Open systems more ripe in Eur. than U.S.

Norwalk's concept ^{concept} ^{campaign} good on WW basis

Everyone understands

H-P:

Downsizing
Services
Out Sourcing

EDS
MicroSoft

(4)

Obituary

Entrepreneur
Med. Bus.

died by suffocation
carried out by bigger comp. co.
+ left ~~spending~~ little ~~in~~ ^{unrelated} ~~work~~ ^{not core to}
work ~~area~~
demand
need need comp.
discriminated little ~~in~~ ^{unrelated} ~~work~~ ^{not core to}

Deconsolidated company

Missile
Solution services initiative

MARGINS ~~thin~~

- too narrow

- unless value added more than

Emphasis Added Value

constantly fighting margin issue

Quality issue & quality costs money

HP terminals power surge to diff kind of technology
exp. / rugged / well engineered

Parsons comp. w/ clear strategy on how to use &
more power

(5)

Missed P.C. market
Local area network activity
Apple came out of H-P wanting to do P.C.
market

Personal electronics cons. elect.

- right dir
- new methods of storage, comm.
- 4-5 Billion units of 10:00 min
- way of future

Best Screen Displays ROR TV, blackboard

Apple deal w/ Sharp

H-P product

Consumer w/ entertainment & personal applicat.
ENT. / pers. educ. all wrapping around

Consumer oriented act. Emphasis must be on
netw., price

reverse-polish
why'd you do that

- overall with standard fun vs. work
-



HEWLETT-PACKARD IMAGE STUDY

Final Report (Draft 1.1)

Submitted to:

McCann-Erickson

August 17, 1992

INPUT

1280 Villa Street
Mountain View, CA 94041
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HEWLETT-PACKARD IMAGE STUDY

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APPENDIX A: - Interview Guide

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HEWLETT-PACKARD IMAGE STUDY

I. INTRODUCTION

This report is the result of a study conducted by INPUT for McCann-Erickson.

A. Objectives

The specific objectives of the study, as presented in the study proposal, *Appendix A*, were to develop a profile of HP's image in the market place, and identify HP's key competitors in the information technology and services market.

B. Methodology

Several sources of information were utilized to develop the conclusions reached in this report. They include:

- Data drawn from INPUT's existing database of information on HP and its competitors.
- Interviews conducted with INPUT's consultants and analysts. (The interview guide is contained in *Appendix B*.)
- Telephone interviews were conducted with key industry leaders.

A total of nine INPUT consultants were interviewed and five telephone surveys were completed. The focus of both sets of interviews was to obtain the respondents' opinions on HP's image as a whole, as well as their views on HP's individual lines of business. Emphasis was placed on those aspects of HP's business targeted at the information technology and services markets; namely the Computer Products and Computer Systems Divisions. Conclusions and recommendations were developed utilizing both the field interviews and the information obtained from INPUT's syndicated research studies.

C. Organization of the Report

- *Chapter II - Executive Summary* summarizes the overall conclusions drawn from the study.
- *Chapter III - Business Line Analysis* looks in greater detail at HP's major lines of business in terms of image and competition.
- *Chapter IV - Vertical Markets* presents INPUT's analysis of where HP stands with regard to specific market niches by industry or product/service line.
- *Chapter V - Conclusions and Recommendations* presents a summary of key conclusions and gives INPUT's recommendations for further study.

II. EXECUTIVE SUMMARY

A. Background

HP moved into the number three ranking of computer companies in 1991, surpassing UNISYS and following IBM and Digital Equipment Corporation which hold the number one and number two positions. Of the total reported revenues of \$14.5 billion in revenues in 1991, INPUT estimates that approximately \$10.7 billion were the result of HP's participation in the information technology and services markets. The remainder were generated through its components and instrumentation divisions.

Volume shipment of the HP Laserjet III, estimated to command 75% share of its market according to Computer Intelligence, along with significant announcements in price/performance on its workstations, and significant growth in its multi-user UNIX business all led to a solid year in a weak worldwide economic environment. Product introductions such as the HP 9000 series 700 workstation, the HP 95 Palmtop computer and the HP DeskJet 500C printer gave HP a new presence in product markets where new offerings are critical to maintaining market share.

In general, HP showed good performance in 1991, doing well at what it's been doing well for a considerable period of time.

B. HP's Overall Image

Even though the sample was small, the analysis of the surveys produced some significant results in terms of HP's overall image.

- Respondents overwhelmingly see HP as a hardware products company. On a scale of 1 to 5, with five being the highest, the hardware categorization was rated 4.9. On the other end of the scale, respondents rated HP 2.3 in terms of being a solution provider (providing an integrated solution to meet customers' applications or processing requirements).
- Furthermore, HP enjoys an image of being a quality firm producing quality products. The average response on the 1 - 5 scale rated HP 4.6 on quality.
- Of the product and service categories tested, the HP Laserjet printer received a rating of 4.6. (A discussion of market images for other major HP offerings is contained in Chapter III.)

Analysis of the field data would indicate that in general HP is perceived as a holding company with various divisions pursuing individual product strategies, exploiting a strong base central R&D function. Little is done by the divisions or executive management to take advantage of the potential synergy between product offerings, or to provide a broader base of solutions, integrating third-party software coupled with professional services. The exception to this position is in the area of manufacturing and factory floor automation where HP's offerings have an excellent reputation and in some instances are considered the best available.

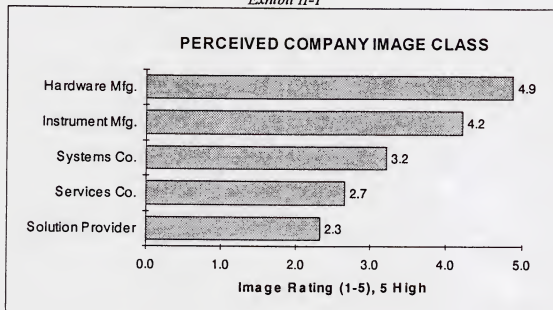


Several respondents commented that the single integrating factor for HP may be **quality**. But, the majority feeling was that HP did little to leverage its excellent reputation for quality in terms of its advertising or promotion. In fact, using the 1 - 5 scale HP's corporate advertising was ranked a mediocre 3.0, and a 3.1 at the divisional or product level. Five of the respondents couldn't recall anything specific about HP's corporate promotional strategy.

C. Competitive Positioning

As indicated in the *Executive Summary*, the dominant perception of HP is as a hardware manufacturer. *Exhibit II-1* shows how respondents rated HP across 5 classes of information technology and services companies. If we eliminate the Instrument Manufacturing category from the ratings, it becomes quite clear that HP is perceived primarily as a hardware manufacturer. From a competitive viewpoint this places them up against IBM, Digital, Unisys, Amdahl, Hitachi, Fujitsu, Machines Bull and ICL at the high end of their product line; and head-to-head with a host of companies competing in the workstation, peripheral and PC markets. This section will present INPUT's views on how HP compares to those firms which participate in multiple markets against HP. *Chapter III - Business Line Analysis* will focus on how it compares with its competition on key specific product offerings.

Exhibit II-1



1. Digital Equipment Corporation (DEC)

Just one rank ahead of HP in terms of revenues of U.S. computer manufacturers, DEC is undergoing (not without significant pain) a major restructuring of its position in the market. Until the late 1980's DEC's could be characterized primarily as a high-quality systems manufacturer with a complete line of integrated products appealing primarily to businesses focused on engineering and manufacturing. To a large degree, not unlike HP's image today.

Through a network of value-added resellers and partners providing applications software, DEC achieved 1980's *Do you mean the other 2 markets (WS, PC) or products (RISC/6000, PCs)* ion into industries beyond manufacturing and engineering during late 1980's decision to focus on services and solution selling for the 1990's and excellent network offerings; and, is embracing a strategy of openness which allows it to position itself head-to-head against companies which offers fully integrated solutions to end-users.

DEC's system offerings over the years makes up the difference in margin by the value added provided through its services and integration strategy. *Services division with capabilities in applications development, systems operations to integrate its (and other company's) hardware and has grown revenues in this area from \$140 million in 1988 to \$1.2 billion in 1990. It offers pricing which is more attractive than HP's and presumably makes up the difference in margin by the value added provided through its services and integration strategy.*

2. IBM Corporation

Not unlike DEC, IBM has gone through considerable adjustments to the market in recent years. Current trends to downsizing, open systems, and solution buying coupled with decreasing margins on large proprietary mainframes have forced IBM into a "get with it" strategy. This means solution selling, vertical industry focus and a willingness to deal with heterogeneous computer environments. IBM now treats consulting, outsourcing, systems integration and professional services as separate lines of business. Given the large potential of the market for integrated solutions, IBM should get a lion's share; and their revenues in these areas are growing rapidly. However, it will take some time before IBM can evolve the culture and processes necessary to get the herd of elephants to act like a pack of wolves in terms of attacking specific market opportunities.

The common ground with HP is really in mid-range systems, workstations and PCs. This pits HP's product line up against IBM's AS/400 mid-range (a jewel that IBM doesn't seem to get maximum leverage out of), the RISC/6000 and IBM's line of personal computers. INPUT's views on how HP stacks up in this area will be presented in Chapter III - Business Line Analysis; but in summary, IBM wins in most markets with the AS/400 and probably has an inferior image in the other two, at least for the moment. Both are considered more expensive than DEC.

3. Other Competitors

UNISYS, NCR, and a number of foreign competitors participate in HP's mini, workstation and PC markets. Most of the competition is on a niche basis. Clearly, HP's overall recognition in the market is superior to most of these competitors. Yet, each has some specific niches in which it has a particular market dominance on the basis of their technology or industry knowledge. Some specific areas worthy of note and relevant to HP's market position are as follows:

- UNISYS has a strong presence in financial markets and is making a good reputation in image processing in a variety of industries.



- NCR should not be underestimated. It's somewhat cantankerous marriage with AT&T provides a wealth of R&D which could potentially leverage NCR's position in the market as a technology innovator.
- Tandem has some unique niches with regard to non-stop computing that HP does not appear to be able to challenge. It also supports an industry-oriented focus which is the preferred way to market for solution selling.
- Sun Microsystems still leads the way in workstations at the moment, although new pricing strategies and product announcements place HP in a potential leadership position.

D. Summary

HP's overall image is one of a quality manufacturer of information technology products; a very large niche company. Probably unknown in consumer markets with the exception of its calculator and laser printer offerings, HP in a way is the "grande dame" of Silicon Valley firms. By some accounts the founder of the Valley, HP remains conservative and somewhat provincial as a corporation, despite a worldwide presence. Many of its innovative concepts have been left for its offspring or Valley upstarts to develop.

Despite different strategies across different world geographies and product divisions, HP's single unifying element seems to be quality. Based on the limited sample taken in this study, HP has done little in terms of promoting that attribute as a unifying element in the promotion of its image.

Although there appears to be some evidence in the press that HP is setting up a Systems Integration function, HP has not elected to adopt an overall strategy of selling integrated solutions directly to end-users, an approach being adopted by all its major competitors. INPUT believes that embracing such a strategy will be key to the survival of hardware manufacturers in the 1990's. Unless HP looks to that approach, it's likely that it will find itself (if not already) a second-tier vendor.

III. BUSINESS LINE ANALYSIS

As part of INPUT's survey, respondents were asked to give their opinions of how HP is perceived with regard to a specific set of product and service offerings (lines of business). Interviewees were also asked to list HP's major competitors in each line of business and offer any comments they might have regarding HP's competitive position. The product/service areas covered were:

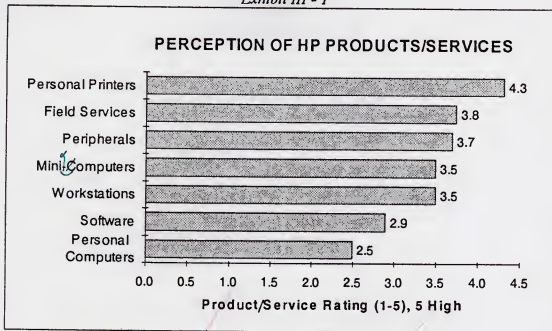
- | | |
|----------------------|---------------------|
| • Mini Computers | • Personal Printers |
| • Peripherals | • Software Products |
| • Workstations | • Field Services |
| • Personal Computers | |

Section A, below, analyzes respondents' views on HP's image with regard to each line of business. Section B analyzes the competitive environment for each line.

A. Perceptions of HP's Offerings

Exhibit III - 1 shows the average of the survey responses to the question, "How do you believe the industry rates HP against its competitors for each line of business?" A scale of 1 to 5 was used, with one representing an "inferior" position and 5 a "superior" position. The responses have been ranked from high to low and are discussed in that order.

Exhibit III - 1



- Personal Printers** - Clearly HP's strong point, the rating of 4.3 is significant even in this small sample. The flagship offering, the HP Laserjet series, is the uncontested runaway for most personal, desktop and local area network (LAN) applications. Now equipped with the ability to use the Postscript language, HP's printers go head-to-head with the Apple Laserwriter as well. Virtually every major writer of PC software has made HP the priority printing engine in terms of providing software drivers to insure that their products can utilize the printer. The explosion of Microsoft's Windows environment along with other graphical user interfaces guarantees growing demand for increasingly sophisticated printers at all price levels.

Further developments using ink-jet technology as well as color printers at reasonable prices will continue to give HP a strong position with an entire family of printing options. This line of offerings coupled with HP's emerging strength in scanners for personal and commercial use places HP in an enviable position. However, without a strategy which packages this technology with others, HP could become a victim of the clone makers, just as IBM's market share leadership in PCs was eroded.

- **Field Service** - HP has long enjoyed a good reputation for providing high-quality field service (hardware maintenance and support) for computers, peripherals and other "in field" technology. This reputation is worldwide and HP has invested heavily in applying new technologies and innovative concepts to delivery of this service to remain cost competitive and state of the art. Diagnosis and support are delivered through a worldwide integrated network providing 24-hour-a-day access to on-line analysis tools and databases.

It should be noted that this is one area where HP has taken a "total solutions" approach, expanding services to deal with facilities management of entire user networks, including non-HP hardware and key software packages. As in some other lines of business, respondents felt that HP did little to proactively promote this extensive capability.

The downside in this area of HP's business is that field service is increasingly competitive. As field-installed hardware becomes increasingly self-diagnostic, offerings will need to become increasingly sophisticated (read value-added) to maintain growing revenue streams and healthy margins.

- **Peripherals, Mini Computers, Workstations** - Respondents ranked HP above average but not superior in these three categories. In general, HP is well thought of in all three areas, but there's plenty of competitors knocking at the door. And with new product innovation continually producing more cost-competitive offerings, HP like other hardware manufacturers will need to continue to make heavy investments in product development just to hold on to market share. Furthermore, with the possible exception of workstations and one or two vertical markets, HP is perceived as an OEM (Other Equipment Manufacturer), i.e. providing one or more components to a total solution being sold by a turnkey systems, systems integrator or other value-added reseller. This places a good deal of their potential market in the hands of third parties.

HP's quality and reputation for technology will probably permit it to hold its own in all these areas. The bright spot is probably workstations, where the acquisition of Apollo, coupled with HP's R&D can keep them leading edge in a rapidly growing market.

- **Software Products** - Respondents certainly don't rate HP high (2.9) as an industry leader in software products, even though HP has its high points in this area. The development of specialized software for manufacturing and healthcare, and systems software such as New Wave (object-oriented interface) and UNIX implementations for open systems all have demonstrated HP's capabilities with software. However, consistent with HP's overall hardware product line orientation, nothing has been done to pull this capability together in a way that the industry perceives HP to be in the software business.

Recently, HP has taken a more aggressive position in software. Lobbying to make its developments in UNIX, along with products like New Wave, industry standards could yield additional revenues from the sale and licensing of software, but provide value added to its hardware products through improved functionality.

- **Personal Computers** - It's INPUT's position, and survey respondents seem to agree (rating 2.5), that HP has missed the window of opportunity to compete in this market as a major commodity player. There is nothing unique about their offering, and it's hard to believe that they can remain price competitive in a market where margins are constantly decreasing. The real hope for HP in this area would be a bundling of their PC offering as part of a total solution package. Two respondents commented that had selected HP for their personal computer standard only because of HP's ability to provide high-quality service and parts on a worldwide basis.

Overall, respondents to the survey felt that the industry viewed the majority of HP's product and service offerings with respect; the obvious leadership position being in the desktop printing area.

B. Competitive Position for Individual Product Lines

Exhibit III - 2 summarizes respondents' thoughts on competitors who are better perceived in HP's primary business lines. (No responses were received regarding competition in field services or peripherals. See Note below.) The field labeled *Competitor/Count* gives the name of the competitor that was cited as superior and the number of mentions. The *Comments* field gives the primary reason(s) why the competitor was cited.

Exhibit III - 2
HP's COMPETITIVE POSITIONING BY BUSINESS LINE

Business Line	Competitor/Count	Comments
Personal Printers	Texas Inst. 2	- Better price/performance
	Apple 2	- Superior handling of Postscript
Mini Computers	DEC 8	- Full offering, solution oriented
	IBM 6	- AS/400, applications software
	Tandem 2	- Fault tolerance
	Other 2	- Plug compatible, better price
Workstations	Sun 9	- Technology, software
Software Products	Microsoft 6	- PC operating systems/apps.
	Oracle/Ingress 4	- Database/SQL offerings
	Various 3	- Applications software
Personal Computers	Clone 10	- High-quality clones (Dell)/price
	COMPAQ 7	- Full product line
	IBM 5	- Installed base
	Apple 3	- Unique interface

Note: Since field service is a proprietary business dependent on the hardware supported, identification of specific leaders would be out of context for purposes of this survey. In the case of peripherals, the audience sampled largely felt they were unqualified to comment on who might be superior, or indicated that they could only answer for specific classes of peripherals. That level of depth was beyond the scope of this study.

INPUT interprets the results presented in *Exhibit III - 2* as follows.

- As reinforced by the earlier findings, HP enjoys an unparalleled position in the desktop printer market. The competitors listed with potentially superior offerings were either clones or unique products such as Apple's Laserwriter tailored for Postscript.
- In the mini computer area the dominant competitors are clearly DEC and IBM. The reasons cited play largely to the notion that both vendors provided a richer set of offerings with more off-the-shelf software in most application areas and available service capabilities to provide total solutions.
- Workstations are harder to call. The only competitor listed as potentially superior was Sun. A number of respondents indicated that that superiority may only be transitory.
- Results in the PC and software area reflect INPUT's earlier assertion that HP is essentially a minor player. In general, respondents felt that you could get more for your money and perhaps a richer set of options on the PC side of the equation by dealing with traditional large vendors like COMPAQ and IBM or by going with high-class clones such as Dell.

Responses regarding software cited some specific areas where HP had produced unique ~~either~~ application or operating system-oriented products, but indicated that by and large, respondents don't consider HP to have more than a handful of specialized offerings at the moment.

IV. VERTICAL/CROSS-INDUSTRY MARKETS

Interview responses regarding either vertical industry or cross-industry markets were fairly consistent. In the cross-industry area HP is perceived to have a strong industry position in Science/Engineering and Desktop Automation. Process Manufacturing, Discrete Manufacturing, Healthcare and to some degree, Financial Services are the vertical industries where HP seems to have a niche. *Exhibit IV - 1* summarizes HP's position in cross-industry markets.

Exhibit IV - 1
HP's POSITION IN CROSS-INDUSTRY MARKETS

Market	Product	Description
Science/Engineering	Workstations PCs Mini Computers CAD/CAM	Out of HP's heritage in scientific computing. Leverages HP's recent move to UNIX and other open environments. Some proprietary software developed by HP.
Desktop Automation	PCs Laserjet Scanners	Desktop publishing, office automation and networking capability. May leverage HP's field service and support packaged as Desktop Services.

Exhibit IV - 2 summarizes HP's position in key vertical industry markets.

Exhibit IV - 2
HP's POSITION IN VERTICAL INDUSTRY MARKETS

Market	Product	Description
Process Manufacturing	Workstations PCs Mini Computers Instrumentation	HP's long history of process monitoring and control instrumentation combined with LAN capabilities provides a good opportunity for value-add in this industry.
Discrete Manufacturing	PCs Mini Computers Software Instrumentation	HP already has an established record in shop floor automation and control as well as some unique software. This industry continues to provide opportunities for HP solutions.
Healthcare	PCs Mini Computers Instrumentation	HP participates heavily in the healthcare instrumentation market and currently provides solutions for the healthcare industry.

Both vertical and cross-industry environments are where HP currently provides solution rather than product-oriented offerings. These may have great potential for further expansion.

V. CONCLUSIONS/RECOMMENDATIONS

A. Conclusions

- HP's industry image is already positive. However, the firm has no well-defined single image in the market other than a manufacturer of high-quality information technology products and instruments.
- There are some areas where HP has a strong position in particular vertical industry or cross-industry markets. INPUT believes that to sustain market growth in an environment where computer hardware is increasingly becoming a commodity, these markets need to be leveraged and new ones developed.
- From a competitive viewpoint, HP is way ahead with regard to its desktop printer offerings. Other products examined with this small study seem to rank above average, but are not unique enough as individual offerings to be perceived as highly differentiated in the present market. Additional value-add is needed.
- HP's ongoing basic R&D and reputation for quality are probably under-utilized in terms of creating its overall market image.

B. Recommendations

INPUT believes that HP can increase its market share for existing products and services as well as develop new markets through a two-pronged approach targeting full solutions through the integration of existing products as well as those of alliances, and better promotion of its existing offerings through packaging. The following outlines the recommendations that INPUT would make to HP, to accomplish those objectives.

- At the corporate level, leverage quality and R&D as the underlying dominant image of HP in the information services market.
- Consider the formation of cross-divisional marketing organizations to develop and refine industry and cross-industry specific solutions. Promote these as utilizing the corporate theme of quality and state-of-the-art technology through research. *(Such organizations may exist within HP today. At the time of this writing, INPUT was unable to determine whether they did or didn't. If such organizations do exist they are not highly visible in terms of HP's promotional activity.)*
- Place more promotional emphasis on HP's commitment to open systems and alliances with software and services firms which will permit the development of full solutions.
- If, in fact, HP is planning to develop an internal Systems Integration capability, utilize it to promote and market the total solution approach focused on key vertical and cross-industry markets.

APPENDIX A

Hewlett-Packard Image Study Interview Guide

HEWLETT-PACKARD IMAGE STUDY
Interview Guide

Name: _____
Title: _____
Company: _____
Address: _____
City/State/Zip: _____
Telephone: _____

We are trying to gather information on your perceptions of Hewlett-Packard as a participant in the information services industry. It would be greatly appreciated if you could provide us with the answers to a few brief questions to assist us in getting your impressions regarding HP's overall image, your viewpoints on some specific classes of products and service offerings, and any other thoughts you might have regarding HP's participation in the market.

- 1.0 The following five terms describe ways in which HP and other companies in the industry might be characterized. On a scale of 1 - 5 please give me your impression of the degree to which the term applies to HP. (1 = Not applicable, 5 = Very applicable)

_____ Systems Company (Hardware/Software)
_____ Services Company
_____ Hardware Manufacturer
_____ Instrument Manufacturer
_____ Solution Provider

- 2.0 Using the same 1 to 5 scale, to what degree do you perceive HP to have a single image in the market place?

- 2.1 What would you say that HP's overall image is?

- 3.0 HP like other major industry players, participates in a variety of vertical and cross-industry markets. I'd like you to list each vertical or cross-industry market where you believe that HP has a significant position. For each one, I'd like you to comment as to what HP products or services help give HP a good market position.

Market	Comments

- 3.1 Do you have any other comments on HP's position in vertical or cross-industry markets?

- 4.0 On a scale of 1 to 5, how would you rate HP's image with regard to quality?

- 4.1 What products or services would you say give them that quality rating? (Good or Bad.)

- 5.0 Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories of product or services? (1 = Low, 5 = High) I'd also like your impression of which of HP's competitors have superior offerings in each category.

Rate	Product/Service	Comments on Competitors
	Mini Computers	
	Peripherals	
	Workstations	
	PCs	
	Printers/Desktop	
	Software	
	Field Services	

- 5.1 Are there products or services that I failed to list that you would like to comment on? If so, please rate and describe them below.

Rate	Product/Service	Comments on Competitors
_____	_____	_____
_____	_____	_____
_____	_____	_____

- 6.0 What is your perception of HP's current corporate level advertising in terms of conveying a company identity or image? (Please use the 1 to 5 scale, 1 = Ineffective, 5 = Very effective.)

- 6.1 What is your perception of HP's product or division-specific advertising? (Please use the same rating scale as above.)

- 7.0 Do you believe that the market perceives HP as primarily a holding company or a provider of integrated solutions? Please check the appropriate box below.

- ☐ Holding Company
☐ Integrated Solution Provider

- 8.0 Please give me any other information that you think might be relevant to evaluating HP's image in the information services marketplace.

Thank you for your cooperation. Your responses will be kept in strictest confidence and will make a valuable contribution to this study.

APPENDIX B

STUDY PROPOSAL



Research Consulting Proposal - July/20, 1992
HEWLETT-PACKARD IMAGE STUDY
For: McCANN-ERICKSON

BACKGROUND AND OBJECTIVES

A. Background

McCANN-ERICKSON, one of the leaders of the advertising industry, is seeking information on Hewlett-Packard's position in the information systems and services industry. In particular McCANN-ERICKSON would like to gain a better understanding of HP's overall image and how it is perceived by its customers and competitors in the various information technology and services markets it serves. To support McCANN-ERICKSON in obtaining the best information available, the agency is considering engaging a market research and consulting firm with specialized knowledge in HP's industry group, and has asked INPUT to propose an approach.

INPUT proposes a two-phased approach with the following specific objectives and scope.

B. Objectives & Scope

1. Phase I - Generation of an Industry Competitive Profile

INPUT will prepare from its existing database of information on HP and its competitors a written profile of HP and the business of its five major divisions. The profile will briefly outline the products and services provided, major competitors for its various lines of business, and INPUT's assessment of HP's image in these businesses based on its familiarity with HP's markets, customers and competition.

To wrap-up Phase I, INPUT will deliver a ^{half} day session to review the profile, and discuss with McCANN-ERICKSON areas where additional information might be required. In addition, at this session, INPUT will present background information on the markets and competition in the various industry groupings in which HP participates.

2. Phase II - Field Research - HP's Image

Based on the results of Phase I, INPUT will develop, with McCANN-ERICKSON, an interview vehicle for field research. Utilizing INPUT's knowledge of the appropriate contacts in the industry, INPUT will conduct a 20 - 30 interview survey to gather information on HP's corporate image. Interviews would be split between domestic and international interviews (2/3 to 1/3). Results of this survey would be tabulated and analyzed to provide McCANN-ERICKSON with more detailed information relevant to gaining an understanding of HP's image.



Depending on the results of this initial survey, INPUT could extend the research study to focus in on HP's specific business units. Most likely this phase would involve the development of specific interview vehicles for each major business/market area. INPUT believes that with its knowledge of the industry, these more detailed studies could be conducted with between 15 and 20 interviews each. They would provide specific information on HP's image in specific market areas which would be useful in formulating an overall view of HP.

DELIVERABLES

1. *Phase I - Generation of an Industry Competitive Profile*
 - Current profile of HP including information previously described.
 - On-site meeting to present profile and define further information needs.
2. *Phase II - Field Research - HP's Image*
 - Written report including a discussion of methodology, analysis, results and recommendations.
 - On-site meeting to review results.

FEES AND SCHEDULES

A. Fees

INPUT's total fee for *Phase I* is \$5,000 payable upon authorization. The high-level field research study proposed in part one of *Phase II* is estimated at \$12,500; and the more in-depth studies of individual businesses will be individually estimated depending upon McCANN-ERICKSON's requirements.

Travel and other incidental costs associated with field research studies (including telephone, reproduction, etc.) will be billed at cost and estimated as part of each study proposal.

- B. **Schedules** - To be mutually determined by McCANN-ERICKSON and INPUT.

QUALIFICATIONS/STAFFING

A. Qualifications

INPUT is well qualified to assist McCANN-ERICKSON in providing the desired information. As a leading market research and consulting firm to the information services industry, INPUT has 17

years of experience in analyzing markets, vendor strategies, user requirements and customer satisfaction.

INPUT's network of key vendors, users and industry analysts put it in a unique position to gather the types of information that McCANN-ERICKSON requires to gain an objective assessment of HP's image. And, its existing data base of industry research provides a context for assessment of HP's current positioning.

B. Staffing

This engagement will be under the overall direction of R. Dennis (Denny) Wayson, Vice President and General Manager of INPUT.

DURATION C *Shouldn't the 'Authorized by' be McCann Erickson to 'Accept' be INPUT?* S VALIDITY

This proposal will be valid for a period of 30 days.

AUTHORIZATION

Authorization of this proposal is granted by INPUT, together with McCANN-ERICKSON, upon acceptance by INPUT, a countersigned copy of the proposal will be submitted to McCANN-ERICKSON.

**AUTHORIZED BY:
INPUT**

**ACCEPTED BY:
McCANN-ERICKSON**

Signature

Signature

Name

Name

Title

Title

Date

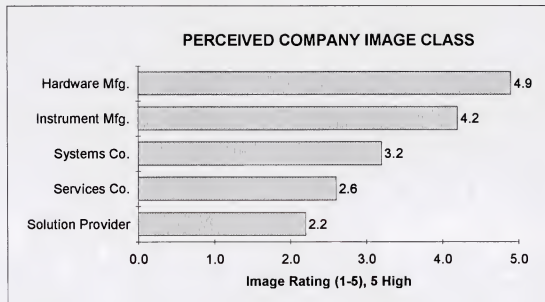
Date



TABULATION OF HP IMAGE STUDY QUESTIONNAIRES

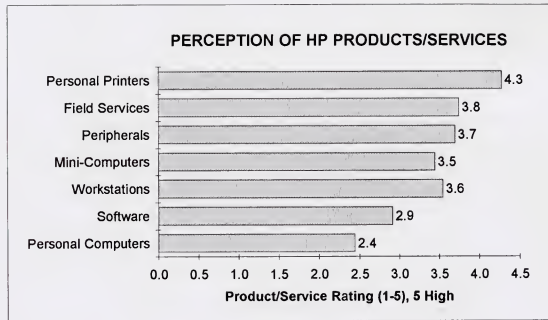
	1.1	1.2	1.3	1.4	1.5	2.0	5.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	7.0	7.1	8.1	8.2
	Sys.	Svc.	Hdw	Ins	Sol	Img	Qty	Min	Per	Wks	PCs	Prt	Sof	Fsv	Adv	Div	Hld	Sol
McGilvray	3.0	4.0	5.0	5.0	4.0	4.0	5.0	3.0		3.0		5.0		4.0	4.0	4.0		1.0
Nilson	3.0	2.0	5.0	4.0	2.0	3.0	4.5	3.5		2.0	2.0	5.0			2.0	2.0		
McGann	3.0	4.0	5.0	2.0	3.0	3.0	4.5	3.0	3.5	4.0	3.0	5.0	3.5	5.0	2.0	4.0	1.0	
Richard	3.0	3.0	5.0	3.0	1.0	4.0	5.0	3.0		3.0	2.0			4.0	4.0	2.5		1.0
Imai	4.0	2.0	5.0	4.0	3.0	4.0	4.0	4.0	3.0	4.0	2.0	2.0	3.0	3.0	3.0	4.0		
Lines	3.0	2.0	5.0	5.0	2.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	2.0	3.0	3.5	3.0		
Frank	2.0	2.0	4.0	5.0	2.0	3.0	5.0	4.0	5.0	3.5	2.0	5.0	3.0	3.0	3.0	2.0	1.0	
Cunningha	3.0	2.0	5.0	4.0	1.0	4.0	4.5	3.0		4.0	2.0	4.0	3.0		3.0	4.0	1.0	
O'Flaherty	4.0	3.0	5.0	5.0	2.0	4.0	4.5	4.0		4.0	3.0	4.5		4.0	3.0		1.0	
Wayson	4.0	2.0	5.0	5.0	2.0	4.0	5.0	4.0	3.0	4.0	3.0	5.0	3.0	4.0	2.5	3.0	1.0	
	3.2	2.6	4.9	4.2	2.2	3.7	4.6	3.5	3.7	3.6	2.4	4.3	2.9	3.8	3.0	3.2		

Hardware M 4.9
 Instrument 4.2
 Systems Co 3.2
 Services Co 2.6
 Solution Pr 2.2



Product Ratings

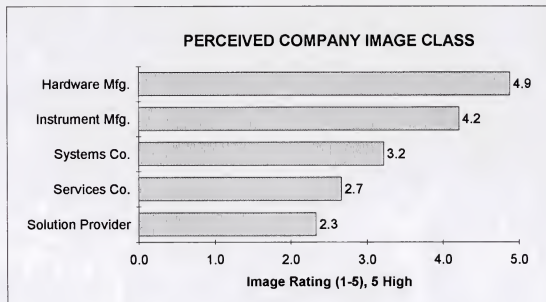
Personal Pr	4.3
Field Serv	3.8
Peripherals	3.7
Mini-Compu	3.5
Workstation	3.6
Software	2.9
Personal C	2.4



TABULATION OF HP IMAGE STUDY QUESTIONNAIRES

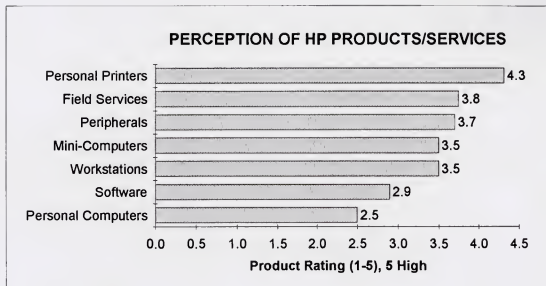
	1.1	1.2	1.3	1.4	1.5	2.0	5.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	7.0	7.1	8.1	8.2
	Sys.	Svc.	Hdw	Ins	Sol	Img	Qty	Min	Per	Wks	PCs	Prt	Sof	Fsv	Adv	Div	Hld	Sol
McGilvray	3.0	4.0	5.0	5.0	4.0	4.0	5.0	3.0		3.0		5.0		4.0	4.0	4.0		1.0
Nilson	3.0	2.0	5.0	4.0	2.0	3.0	4.5	3.5		2.0	2.0	5.0			2.0	2.0		
McGann	3.0	4.0	5.0	2.0	3.0	3.0	4.5	3.0	3.5	4.0	3.0	5.0	3.5	5.0	2.0	4.0	1.0	
Richard	3.0	3.0	5.0	3.0	1.0	4.0	5.0	3.0		3.0	2.0			4.0	4.0	2.5		1.0
Imai	4.0	2.0	5.0	4.0	3.0	4.0	4.0	4.0	3.0	4.0	2.0	2.0	3.0	3.0	3.0	4.0		
Lines	3.0	2.0	5.0	5.0	2.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	2.0	3.0	3.5	3.0		
Frank	2.0	2.0	4.0	5.0	2.0	3.0	5.0	4.0	5.0	3.5	2.0	5.0	3.0	3.0	3.0	2.0	1.0	
O'Flaherty	4.0	3.0	5.0	5.0	2.0	4.0	4.5	4.0		4.0	3.0	4.5		4.0	3.0		1.0	
Wayson	4.0	2.0	5.0	5.0	2.0	4.0	5.0	4.0	3.0	4.0	3.0	5.0	3.0	4.0	2.5	3.0	1.0	
	3.2	2.7	4.9	4.2	2.3	3.7	4.6	3.5	3.7	3.5	2.5	4.3	2.9	3.8	3.0	3.1		

Hardware M 4.9
 Instrument 4.2
 Systems Co 3.2
 Services Co 2.7
 Solution Pr 2.3



Product Ratings

Personal Pr	4.3
Field Servic	3.8
Peripherals	3.7
Mini-Compu	3.5
Workstation	3.5
Software	2.9
Personal C	2.5



Hewlett-Packard Image Study
R. Dennis Wayson - August 1992

*THIS TABULATION DOES
NOT INCLUDE TORREX
OR P.LINES*

1. HP as a:

Systems Company	Y-2	N-	3, 3, 3, 3, 4, 4,
Services Company	Y-1	N-1	4, -, 4, 3, 2, 3,
Hardware Manufact.	Y-2	N-	5, 5, 5, 5, 5, 5,
Instrument Manu.	Y-1	N-1	5, -, 2, 3, 4, 5,
Solution Provider	Y-1	N-1	4, 2, 3, -, 3, 2,

Note: only 2 respondents marked Y/N answers

Overall Image

- Quality products, quality image, strong competitor
- Good to very good - nothing bad
- Have seen evidence in the press they are setting up SI functions, but they still look and feel like a hardware manufacture
- One of excellent companies
- Mid-range computer manufacturer which has a strength in engineering and process control sectors

2. **Single image in the market**

- 4, 3, 3, 4 (hardware), 4, 4,
- Solutions provider as opposed to product or service orientation. Products are important, but the predominant image is one of capability to solve a problem or meet a need.
- Mid-size computer manufacturer - process control and discrete manufacturer
- H/P laser printer is an industry standard
- Hardware provider
- Minicomputers and workstations
- Manufacturer
- High quality products and go their own way

4. **Vertical industry/cross-industry markets - HP strong image**

- Personal Computing / Hand-held calculators/devices
- Instrumentation
- Office Products/Admin. - Laser printers are the standard of the industry
- Mid-size computer manufacturer - process control and discrete manufacturer
- H-P Laser printer is an industry standard
- Engineering/Scientific - Hardware capabilities/uptime - Customer Service
- Discrete Manufacturing - Hardware capabilities/uptime - Customer Service
- Process Manufacturing - Hardware capabilities/uptime - Customer Service - Control of Process Equipment - Machine control equipment - strip floor
- Health - Hardware capabilities/uptime - Customer Service - biomedical lab work primarily
- Engineering
- Process Control
- Financial
- Manufacturing (MRP and factory floor)

No other comments on H-P's position in vertical/cross-industry markets



5. **H-P Quality**

- 5, 4.5, -, 5, 4, 4.5
- Virtually all that I have come into contact with. H-P is to their products/markets as Sony is to consumer electronics
- H-P 3000, H-P laser printers
- Good reputation for overall functionality and technological excellence, usually at the forefront in technology
- Hardware
- All

6. **HP Against competitors:**

- **Mini-Computers** 3, 3.5, 3, 3, 4,4 *DEC 8*
· Dec *IBM 6*
· Dec
· IBM/DEC
· DEC/IBM
- **Peripherals** ?, -, 3.5, ?, 3, DK
· ?
- **Workstations** 3, 2, 4, 3, 4, 4, 3
· Sun
· Sun marginally
· Sun
· Sun
· Sun
- **Personal Comp.** ?, 2, 3, 2, 2, 3
· IBM, Apple
· Most PC compatible vendors & Mac
· IBM, Compaq
- **Personal Printers** 5, 5, 5, ?, 2, 4.5
· ?
· None
- **Software (Apps.)** ?, ?, 3.5, ?, 3, DK
· ?
· IBM, CA
- **Field Service** 4, ?, 5, 4, 3, 4
· ?
· ?
· BC

Products or or service lines overlooked?

- Don't know enough about HP product line to properly answer this question.
- Some system and software _____

7. Perception of H-P's Current advertising?

Overall corporate image? 3, 3, 4, 2, 4, 2
- nothing much comes to mind

Product or division specific? 4, DK*, 3.2**, 3-5
- *Although I have seen
- **Probably because of diverse product line

8. Market perceives H-P as primarily a:

- Holding company - x, x,
- Full service solutions provider - x, x, x,

Comments:

- HP as a very large _____ company
- Neither of the above - About 4 years ago in Minneapolis, I attended the H-P Expo. They were demonstrating a full range of products. That exhibit greatly raised my impression of H-P. They showed wafer level IC's, CAD/CAM, very large plotters, test equipment, etc. That show has stayed in my mind for years. Where I cannot recall one single H-P ad which I am sure I have seen. Similarly - 1-1/2 years ago I went to another demo session by NEC with GTSI. I still remember their color laser printer.
- HP does not seem to profit in image from its individual strengths.

ADDITIONAL NOTES

Look up Oracle questionnaire (YNORI) in files to get some additional question ideas. O'Flaherty

H-P just signed with NH as an SI client. I have answered a few hotlines, mostly on market segments, size, etc. I do NOT have an SI profile on them and would welcome your contribution. Nilsen



HEWLETT_PACKARD IMAGE STUDY

FROM: Denny Wayson
TO: Tom O, John McGann, J. P., Al, John Frank
Laura, John McGilvary, Laura Torrey

I recently signed a QAD kind of agreement with McCann-Erickson to gather industry impressions of HP's corporate image. This is just a \$5,000 job that could lead to a significantly larger piece of business, if they like what they see on this go-around.

A copy of the proposal which was signed last week is attached. My approach for this portion of the contract is to get your opinions regarding HP's image as well as contact on my own a couple of industry consultants and HP's competitors. It would really help me out if you could give a little thought to some of the questions/issues stated below and jot down your thoughts.

You can fax anything you've got back to Judy. Anything that you could give me would be of considerable help. Keep in mind that we were focusing primarily on the computer industry aspects of HP's image... say not the controls division. To prompt your memory about HP, I had intended to enclose a current profile. However, I'm sitting here at my parent's house and don't even have the vaguest notion of whether we have one. If we do, Judy will attach it.

1. Do you think of HP as a:

Systems Company	Y/N	1-5=	Degree
Services Company	Y/N	1-5=	Degree
Hardware Manufact.	Y/N	1-5=	Degree
Instrument. Manu.	Y/N	1-5=	Degree
Solution Provider	Y/N	1-5=	Degree

Comments on HP's Overall Image:

2. On a scale of 1-5 to what degree do you perceive HP to have a single image in the market? _____

If above 3, what would you say that image is?

4. Please list either the vertical industry markets or cross-industry markets in which you think HP has a strong image. For each one comment on the product or service that you think gives them good position.

MARKET

COMMENTS

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Any other comments on HP's position in vertical/cross-industry markets:

5. On the good old 1-5 scale please rate HP on quality?

_____ What products or services would you say give them that image? (Good or bad.)

6. Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories. Include list of competitors who you believe to be better perceived in the market.

PRODUCT/SERVICE	1-5	SUPERIOR COMPETITORS
<u>Mini-Computers</u>	_____	_____
<u>Peripherals*</u>	_____	_____
<u>Workstations</u>	_____	_____
<u>Personal Comp.</u>	_____	_____
<u>Personal Printers.</u>	_____	_____
<u>Software (Apps.)</u>	_____	_____
<u>Field Service</u>	_____	_____

Are there product or service lines which I have overlooked? If so please give me the product or service offering and your view of HP's position.

7. What is your perception of HP's current advertising?
Please use the 1-5 scale.

Overall corporate image? ____

Product or division specific? ____

8. Do you think that the market perceives HP as primarily a holding company (____), or a full service solutions provider, (____)? (Please check the appropriate box)
9. Please give me any other information that you feel would be useful in meeting the project objectives for Phase I:

Thanks! RDW

HEWLETT_PACKARD IMAGE STUDY

FROM: Denny Wayson
 TO: Tom O. John McGann, J. P., Al, John Frank
 Laura, John McGilvary, ^{by agreement} Torrey

I recently signed a QAD kind of agreement with McCann-Erickson to gather industry impressions of HP's corporate image. This is just a \$5,000 job that could lead to a significantly larger piece of business, if they like what they see on this go-around.

A copy of the proposal which was signed last week is attached. My approach for this portion of the contract is to get your opinions regarding HP's image as well as contact on my own a couple of industry consultants and HP's competitors. It would really help me out if you could give a little thought to some of the questions/issues stated below and jot down your thoughts.

You can fax anything you've got back to Judy. Anything that you could give me would be of considerable help. Keep in mind that we're focusing primarily on the computer industry aspects of HP's image... say not the controls division. To prompt your memory about HP, I had intended to enclose a current profile. However, I'm sitting here at my parent's house and don't even have the vaguest notion of whether we have one. If we do, Judy will attach it. (No profile on H-P). ^{DP}

1. Do you think of HP as a:

Systems Company	Y/N	1-5=	Degree
Services Company	Y/N	1-5=	Degree
Hardware Manufact.	Y/N	1-5=	Degree 4
Instrument. Manu.	Y/N	1-5=	Degree 5
Solution Provider	Y/N	1-5=	Degree

Comments on HP's Overall Image:2. On a scale of 1-5 to what degree do you perceive HP to have a single image in the market? 3

If above 3, what would you say that image is?

image isn't unified
 around a product line
 much as a company:
 eg. - good place to work
 - good culture, good people
 - Founder of Silicon Valley

HP IMAGE STUDY - PAGE 2

4. Please list either the vertical industry markets or cross-industry markets in which you think HP has a strong image. For each one comment on the product or service that you think gives them good position.

MARKET

COMMENTS

<u>laser printers</u>	<u>good foot in the door for micro computing</u>
<u>medical equip</u>	<u>—</u>
<u>mini computers</u>	<u>Better than DEC but less instl'd base</u>
<u>workstations</u>	<u>head to head with SUN</u>
<u> </u>	<u> </u>

Any other comments on HP's position in vertical/cross-industry markets:

5. On the good old 1-5 scale please rate HP on quality?

5 What products or services would you say give them that image? (Good or bad.)

the whole culture is quality driven

6. Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories. Include list of competitors who you believe to be better perceived in the market.

PRODUCT/SERVICE

1-5

SUPERIOR COMPETITORS

Mini-Computers4DEC ✓Peripherals*5best for laser printersWorkstations3-4SUN is perceived superior but isn'tPersonal Comp.2only in palm tops does HP have an edgePersonal Printers.5Software (Apps.)3Field Service3

HP IMAGE STUDY- PAGE 3

Are there product or service lines which I have overlooked? If so please give me the product or service offering and your view of HP's position.

7. What is your perception of HP's current advertising?
Please use the 1-5 scale.

Overall corporate image? 3

Product or division specific? 2

- heavy advertising for workstations in past 2 yrs.

8. Do you think that the market perceives HP as primarily a holding company (☒) , or a full service solutions provider, (☐)? (Please check the appropriate box)
9. Please give me any other information that you feel would be useful in meeting the project objectives for Phase I:

Thanks! RJDW

A Research Proposal

for

McCANN-ERICKSON

HEWLETT-PACKARD IMAGE STUDY

Presented by

INPUT

1280 Villa Street
Mountain View, CA 94041

415-961-3300

415-961-3966 (Fax)

Revision 1.1, July 20, 1992

Property of INPUT

Research Consulting Proposal - July, 20, 1992
HEWLETT-PACKARD IMAGE STUDY
For: McCANN-ERICKSON

BACKGROUND AND OBJECTIVES

A. Background

McCANN-ERICKSON, one of the leaders of the advertising industry, is seeking information on Hewlett-Packard's position in the information systems and services industry. In particular McCANN-ERICKSON would like to gain a better understanding of HP's overall image and how it is perceived by its customers and competitors in the various information technology and services markets it serves. To support McCANN-ERICKSON in obtaining the best information available the agency is considering engaging a market research and consulting firm with specialized knowledge in HP's industry group, and has asked INPUT to propose an approach.

INPUT proposes a two phased approach with the following specific objectives and scope.

B. Objectives & Scope

1. Phase I - Generation of an Industry Competitive Profile

INPUT will prepare from its existing database of information on HP and its competitors a written profile of HP and the business of its five major divisions. The profile will briefly outline the products and services provided, major competitors for its various lines of business, and INPUT's assessment of HP's image in these businesses based on its familiarity with HP's markets, customers and competition.

To wrap-up *Phase I* INPUT will deliver a 1/2 day session to review the profile, and discuss with McCANN-ERICKSON areas where additional information might be required. In addition, at this session, INPUT will present background information on the markets and competition in the various industry groupings in which HP participates.

2. Phase II - Field Research - HP's Image

Based on the results of *Phase I*, INPUT will develop, with McCANN-ERICKSON, an interview vehicle for field research. Utilizing INPUT's knowledge of the appropriate contacts in the industry, INPUT will conduct a 20 - 30 interview survey to gather information on HP's corporate image. Interviews would be split between domestic and international interviews (2/3 to 1/3). Results of this survey would be tabulated and analyzed to provide McCANN-ERICKSON with more detailed information relevant to gaining an understanding of HP's image.

Hewlett-Packard Image Study - McCann-Erickson

Depending on the results of this initial survey INPUT could extend the research study to focus in on HP's specific business units. Most likely this phase would involve the development of specific interview vehicles for each major business/market area. INPUT believes that with its knowledge of the industry these more detailed studies could be conducted with between 15 and 20 interviews each. They would provide specific information on HP's image in specific market areas which would be useful in formulating an overall view of HP.

DELIVERABLES

1. *Phase I - Generation of an Industry Competitive Profile*
 - Current profile of HP including information previously described.
 - On-site meeting to present profile and define further information needs.
2. *Phase II - Field Research - HP's Image*
 - Written report including a discussion of methodology, analysis, results and recommendations.
 - On-site meeting to review results.

FEES AND SCHEDULES**A. Fees**

INPUT's total fee for *Phase I* is \$5,000 payable upon authorization. The high level field research study proposed in part one of *Phase II* is estimated at \$12,500; and the more in-depth studies of individual businesses will be individually estimated depending upon McCANN-ERICKSON's requirements.

Travel and other incidental costs associated with field research studies (including telephone, reproduction, etc.) will be billed at cost and estimated as part of each study proposal.

13. **Schedules** - To be mutually determined by McCANN-ERICKSON and INPUT.

QUALIFICATIONS/STAFFING**A. Qualifications**

INPUT is well qualified to assist McCANN-ERICKSON in providing the desired information. As a leading market research and consulting firm to the information services industry, INPUT has 17

Hewlett-Packard Image Study - McCann-Erickson

years of experience in analyzing markets vendor strategies, user requirements and customer satisfaction.

INPUT's network of key vendors users and industry analysts put it in a unique position to gather the types of information that McCANN-ERICKSON requires to gain an objective assessment of HP's image. And, its existing data base of industry research provides a context for assessment of HP's current positioning.

B. Staffing

This engagement will be under the overall direction of R. Dennis (Denny) Wayson, Vice President and General Manager of INPUT.

DURATION OF THIS PROPOSALS VALIDITY

This proposal will remain valid for a period of 30 days.

AUTHORIZATION

Authorization of this project may be completed by signing and returning a copy of the proposal to INPUT, together with the payment of \$5,000. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to McCANN-ERICKSON.

AUTHORIZED BY:
INPUT

ACCEPTED BY:
McCANN-ERICKSON

Signature

Signature

Name

Name

Title

Title

Date

Date

07/27/92

11:08

415 961 3886 /

INPUT

LONDON

001/007

INPUT*1280 Villa Street, Mountain View, CA 94041 (415) 961-3300
Fax (415) 961-3886**FAX TRANSMITTAL FORM**

Date: July 27, 1992
To: Name: Peter Linus
Tetsuo Imai
Tel/Location: _____
Co.: _____
Fax No: _____
From: Judy Parks for Danny Wayman
Subject: H & Image Study

Confidential: Y/N
Urgent: Y/NPage: 1 of 2File: Chron
Contact
Other:

→ Peter -

→ Tetsuo -

Danny is looking for your impressions regarding HP in your
respective areas of the world, i.e. Asia, Europe

Please fax any information you can send to my attention.

Thanks very much.

Judy

John - Michael.

from Peter Linus.



STAPLES TOWSON #148

TEL:410-337-7214

Jul 27-92

9:22 No.007 P.05

HENZLIT_PACARD IMAGE STUDY

FROM: Donny Wayson
 TO: Tom O. John McCann, J. P., Al. John Frank
 Tawse, John McIlvrey, John Torrey

I recently signed a QAD kind of agreement with McCann-Erickson to gather industry impressions of HP's corporate image. This is just a \$5,000 job that could lead to a significantly larger piece of business, if they like what they see on this go-around.

A copy of the proposal which was signed last week is attached. My approach for this portion of the contract is to get your opinions regarding HP's image as well as contact on my own a couple of industry consultants and HP's competitors. It would really help me out if you could give a little thought to some of the questions/issues stated below and jot down your thoughts.

You can fax anything you've got back to Judy. Anything that you could give me would be of considerable help. Keep in mind that we're focusing primarily on the computer industry aspects of HP's image... my not the controls division. To prompt your memory about HP, I had intended to enclose a current profile. However, I'm sitting here at my parent's house and don't even have the vaguest notion of whether we have one. If we do, Judy will attach it. (No Profile on H-P), JP.

1. Do you think of HP as a:

Systems Company	<input checked="" type="radio"/> Y <input type="radio"/> N	1-5=	Degree	3
Services Company	<input checked="" type="radio"/> Y <input type="radio"/> N	1-5=	Degree	2
Hardware Manufact.	<input checked="" type="radio"/> Y <input type="radio"/> N	1-5=	Degree	5
Instrument. Manu.	<input checked="" type="radio"/> Y <input type="radio"/> N	1-5=	Degree	5
Solution Provider	<input checked="" type="radio"/> Y <input type="radio"/> N	1-5=	Degree	2

Comments on HP's Overall Image:2. On a scale of 1-5 to what degree do you perceive HP to have a single image in the market? 4

If Above 3, what would you say that image is?

~~THE~~ ADVANCED TECHNOLOGY
 HIGH PRICE / HIGH QUALITY

07/27/92 11:08

415 961 3866

INPUT

+++ LONDON

002/007

STAPLES TOWSON H148 TEL:410-337-7214

Jul 27, 92 9:22 No.007 P.06

HP IMAGE STUDY - PAGE 2

1. Please list either the vertical industry markets or cross-industry markets in which you think HP has a strong image. For each one comment on the product or service that you think gives them good position.

MARKET	COMMENTS
INSTRUMENTATION	STRONG
MEDICAL	STRONG
SCIENTIFIC	STRONG
CASE TOOLS	MEDIUM

Any other comments on HP's position in vertical/cross-industry markets:

5. On the good old 1-5 scale please rate HP on quality?

4 What products or services would you say give them that image? (Good or bad.) ALL PRODUCTS

6. Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories. Include list of competitors who you believe to be better positioned in the market.

PRODUCT/SERVICE	1-5	CURRENT OR COMPETITORS
Mini-Computers	3	DIGITAL
Peripherals	4	?
Workstations	4	SUN
Personal Comp.	3	COMPAQ, IBM
Personal Printers	3	-
Software (Apps.)	2	VARIOUS
Field Service	3	- PROPRIETARY SO NOT RELEVANT

07/27/92 11:07

0415 901 3900

INPUT

LONDON

0003/007

STAPLES TOWNSHIP NJ

TEL: 908-337-7214

JUL 27 92

9:22 NO.007 P.07

HP IMAGE STUDY- PAGE 3

ii

Are there product or service lines which I have overlooked? If so please give me the product or service offering and your view of HP's position.

7. What is your perception of HP's current advertising? Please use the 1-5 scale.

Overall corporate image? 3.5

Product or division specific? 3

8. Do you think that the market perceives HP as primarily a holding company (), or a full service solutions provider, ()? (Please check the appropriate box)

9. Please give me any other information that you feel would be useful in meeting the project objectives for Phase I:

Neither

- a systems/
technology
product company.

THANKS RJDW

07/27/92 10:11

D415 981 3886

INPUT

NEW JERSEY

002/008

STAPLES TOWSON #148

TEL:410-337-7214

Jul 27,92

9:22 No.007 P.05

HEWLETT-PACKARD IMAGE STUDY

FROM: Denny Wayson
 TO: Tom O. John McGann, J. P., Al. John Frank
 Laura, John McGilvary, ~~John~~ Torrey

I recently signed a QAD kind of agreement with McGann-Erickson to gather industry impressions of HP's corporate image. This is just a \$5,000 job that could lead to a significantly larger piece of business, if they like what they see on this go-around.

A copy of the proposal which was signed last week is attached. My approach for this portion of the contract is to get your opinions regarding HP's image as well as contact on my own a couple of industry consultants and HP's competitors. It would really help me out if you could give a little thought to some of the questions/issues stated below and jot down your thoughts.

You can fax anything you've got back to Judy. Anything that you could give me would be of considerable help. Keep in mind that we're focusing primarily on the computer industry aspects of HP's image... say not the controls division. To prompt your memory about HP, I had intended to enclose a current profile. However, I'm sitting here at my parent's house and don't even have the vaguest notion of whether we have one. If we do, Judy will attach it. (No profile on H-P). *sp.*

1. Do you think of HP as a:

Systems Company	Y/N	1-5= 4	Degree
Services Company	Y/N	1-5= 3	Degree
Hardware Manufact.	Y/N	1-5= 5	Degree
Instrument. Manu.	Y/N	1-5= 5	Degree
Solution Provider	Y/N	1-5= 2	Degree

Comments on HP's Overall Image:

High quality products

2. On a scale of 1-5 to what degree do you perceive HP to have a single image in the market? 4

If above 3, what would you say that image is?

+ Go their own way

07/27/92 10:11

415 951 3888

INPUT

--- NEW JERSEY

003/009

STAPLES TOWSON #148

TEL:410-337-7214

Jul 27,92

9:22 No.007 P.06

HP IMAGE STUDY - PAGE 2

4. Please list either the vertical industry markets or cross-industry markets in which you think HP has a strong image. For each one comment on the product or service that you think gives them good position.

MARKET

COMMENTS

Mfg (MRPs factory floor)

Any other comments on HP's position in vertical/cross-industry markets:

5. On the good old 1-5 scale please rate HP on quality?

4.5

What products or services would you say give them that image? (Good or bad.)

All

6. Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories. Include list of competitors who you believe to be better perceived in the market.

PRODUCT/SERVICE	1-5	SUPERIOR COMPETITORS
<u>Mini-Computers</u>	<u>4</u>	_____
<u>Peripherals</u>	<u>DK</u>	_____
<u>Workstations</u>	<u>4</u>	<u>Sun mainly</u>
<u>Personal Comp.</u>	<u>3</u>	_____
<u>Personal Printers</u>	<u>4.5</u>	_____
<u>Software (Apps.)</u>	<u>DK</u>	_____
<u>Field Service</u>	<u>4</u>	_____

07/27/92 10:12 415 961 3966

INPUT

--- NEW JERSEY

004/008

STAPLES TOWSON #148

TEL:410-337-7214

Jul 27,92

9:22 No.007 P.07

HP IMAGE STUDY- PAGE 3

Are there product or service lines which I have overlooked? If so please give me the product or service offering and your view of HP's position.

7. What is your perception of HP's current advertising?

Please use the 1-5 scale.

Overall corporate image? 3

Product or division specific? DK

nothing much comes to mind,
although I have seen

8. Do you think that the market perceives HP as primarily a holding company (X), or a full service solutions provider, ()? (Please check the appropriate box)

9. Please give me any other information that you feel would be useful in meeting the project objectives for Phase I:

HP as a very large niche company?

Thanks! R/DW



HEWLETT_PACKARD IMAGE STUDY

*Judy -
John McGilvary*

FROM: Denny Wayson
TO: Tom O. John McGann, J. P., Al, John Frank
Laura, John McGilvary, Torrey

I recently signed a QAD kind of agreement with McCann-Erickson to gather industry impressions of HP's corporate image. This is just a \$5,000 job that could lead to a significantly larger piece of business, if they like what they see on this go-around.

A copy of the proposal which was signed last week is attached. My approach for this portion of the contract is to get your opinions regarding HP's image as well as contact on my own a couple of industry consultants and HP's competitors. It would really help me out if you could give a little thought to some of the questions/issues stated below and jot down your thoughts.

You can fax anything you've got back to Judy. Anything that you could give me would be of considerable help. Keep in mind that we're focusing primarily on the computer industry aspects of HP's image... say not the controls division. To prompt your memory about HP, I had intended to enclose a current profile. However, I'm sitting here at my parent's house and don't even have the vaguest notion of whether we have one. If we do, Judy will attach it. (NO PROFILE ON HP). DP.

1. Do you think of HP as a:

Systems Company	Y/N	1-5= 3	Degree
Services Company	Y/N	1-5= 4	Degree
Hardware Manufact.	Y/N	1-5= 5	Degree
Instrument. Manu.	Y/N	1-5= 5	Degree
Solution Provider	Y/N	1-5= 4	Degree

Comments on HP's Overall Image:

QUALITY PRODUCTS, QUALITY IMAGE, STRONG COMPETITOR

2. On a scale of 1-5 to what degree do you perceive HP to have a single image in the market? 4

If above 3, what would you say that image is?

SOLUTIONS PROVIDER AS OPPOSED TO PRODUCT OR SERVICE ORIENTATION. PRODUCTS ARE IMPORTANT, BUT THE PREDOMINANT IMAGE IS ONE OF CAPABILITY TO SOLVE A PROBLEM OR MEET A NEED.



HP IMAGE STUDY - PAGE 2

4. Please list either the vertical industry markets or cross-industry markets in which you think HP has a strong image. For each one comment on the product or service that you think gives them good position.

MARKET

COMMENTS

PERSONAL COMPUTING - HAND-HELD CALCULATORS/DEVICES
INSTRUMENTATION
OFFICE PRODUCT/ADMIN - LASER PRINTERS ARE THE
STANDARD OF THE INDUSTRY.

Any other comments on HP's position in vertical/cross-industry markets:

5. On the good old 1-5 scale please rate HP on quality?

5 What products or services would you say give them that image? (Good or bad.) VIRTUALLY ALL THAT I HAVE COME INTO CONTACT WITH. HP HAS A TO THEIR REPUTATION/MKTG AS SONY IS TO CONSUMER ELECTRONICS.

6. Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories. Include list of competitors who you believe to be better perceived in the market.

PRODUCT/SERVICE	1-5	SUPERIOR COMPETITORS
<u>Mini-Computers</u>	<u>3</u>	<u>IBM, DEC</u>
<u>Peripherals*</u>	<u>?</u>	<u>—</u>
<u>Workstations</u>	<u>3</u>	<u>SUN</u>
<u>Personal Comp.</u>	<u>?</u>	<u>—</u>
<u>Personal Printers.</u>	<u>5</u>	<u>NONE -</u>
<u>Software (Apps.)</u>	<u>?</u>	<u>—</u>
<u>Field Service</u>	<u>4</u>	<u>?</u>



HP IMAGE STUDY- PAGE 3

Are there product or service lines which I have overlooked? If so please give me the product or service offering and your view of HP's position.

7. What is your perception of HP's current advertising?
Please use the 1-5 scale.

Overall corporate image? 4

Product or division specific? 3-5

8. Do you think that the market perceives HP as primarily a holding company (), or a full service solutions provider, (X)? (Please check the appropriate box)
9. Please give me any other information that you feel would be useful in meeting the project objectives for Phase I:

JOHN MCGILVERAY

Thanks! RJW



Jul 27 92 9:22 No.007 P.05

Al Nelson

HEWLETT-PACKARD IMAGE STUDY

FROM: Denny Wayson
TO: Tom O, John McCann, J. P., Al, John Frank
Laura, John McGilvery, ~~John~~ Torrey

I recently signed a QAD kind of agreement with McCann-Erickson to gather industry impressions of HP's corporate image. This is just a \$5,000 job that could lead to a significantly larger piece of business, if they like what they see on this go-around.

A copy of the proposal which was signed last week is attached. My approach for this portion of the contract is to get your opinions regarding HP's image as well as contact on my own a couple of industry consultants and HP's competitors. It would really help me out if you could give a little thought to some of the questions/issues stated below and jot down your thoughts.

You can fax anything you've got back to Judy. Anything that you could give me would be of considerable help. Keep in mind that we're focusing primarily on the computer industry aspects of HP's image... say not the controls division. To prompt your memory about HP, I had intended to enclose a current profile. However, I'm sitting here at my parent's house and don't even have the vaguest notion of whether we have one. If we do, Judy will attach it. (No profile on H-P). *dp.*

1. Do you think of HP as a:

Systems Company	<input checked="" type="radio"/> Y/N	1-5=	3	Degree
Services Company	<input checked="" type="radio"/> Y/N	1-5=		Degree
Hardware Manufact.	<input checked="" type="radio"/> Y/N	1-5=	5	Degree
Instrument. Manu.	<input checked="" type="radio"/> Y/N	1-5=		Degree
Solution Provider	<input checked="" type="radio"/> Y/N	1-5=	2	Degree

Comments on HP's Overall Image:

Good TO VERY GOOD - NOTHING BAD.

2. On a scale of 1-5 to what degree do you perceive HP to have a single image in the market? 3

If above 3, what would you say that image is?

MID SIZE COMPUTER MANUFACTURER - PROCESS
CONTROL AND DISCRETE MFG -
H/P LASER PRINTER IS AN INDUSTRY STANDARD



STAPLES TOWSON #148

TEL:410-337-7214

Jul 27 92

9:22 No.007 P.06

HP IMAGE STUDY - PAGE 2

4. Please list either the vertical industry markets or cross-industry markets in which you think HP has a strong image. For each one comment on the product or service that you think gives them good position.

See #3

MARKET

COMMENTS

Any other comments on HP's position in vertical/cross-industry markets:

5. On the good old 1-5 scale please rate HP on quality?

4.5 What products or services would you say give them that image? (Good or bad.)

H/P 3000

H/P LASER PRINTERS.

6. Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories. Include list of competitors who you believe to be better perceived in the market.

PRODUCT/SERVICE

1-5

SUPERIOR COMPETITORS

Mini-computers3.5Peripherals*Workstations2Personal Comp.2Personal Printers.5Software (apps.)?Field Service?



STAPLES TOWSON #148

TEL:410-337-7214

Jul 27.92

9:22 No.007 P.07

HP IMAGE STUDY- PAGE 3

Are there product or service lines which I have overlooked? If so please give me the product or service offering and your view of HP's position.

7. What is your perception of HP's current advertising?
Please use the 1-5 scale.

? Overall corporate image? _____

Product or division specific? _____

8. Do you think that the market perceives HP as primarily a holding company (____), or a full service solutions provider, (____)? (Please check the appropriate box) **NEITHER**

9. Please give me any other information that you feel would be useful in meeting the project objectives for Phase I:

ABOUT ⁴~~5~~ YEARS AGO ^{IN MINNEAPOLIS} I ATTENDED A H/P EXPO.

THEY WERE DEMONSTRATING A FULL RANGE OF PRODUCTS.

THAT EXHIBIT GREATLY RAISED MY IMPRESSION OF H/P.

THEY SHOWED WAFER LEVEL IC'S, CAD/CAM, VERY LARGE PLOTTERS, TEST EQUIPMENT, ETC.

THANKS! H/DW

THAT SHOW HAS STAYED IN MY MIND FOR YEARS,
WHERE I CAN NOT RECALL ONE SINGLE H/P AD WHICH
I AM SURE I HAVE SEEN.

SIMILARLY - 1 1/2 YEARS AGO I WENT TO ANOTHER
DEMO SESSION BY NEC WITH GTSI. I STILL REMEMBER
THEIR COLOR LASER PRINTER.



STAPLES TOWSON #148

TEL:410-337-7214

Jul 27.92

9:22 No.007 P.05

John McGann

HEWLETT-PACKARD IMAGE STUDY

FROM: Denny Wayson
 TO: Tom O. John McGann, J. P., Al. John Frank
 Laura, John McElvany, ~~John~~ Torrey

I recently signed a QAD kind of agreement with McGann-Erickson to gather industry impressions of HP's corporate image. This is just a \$5,000 job that could lead to a significantly larger piece of business. If they like what they see on this go-around.

A copy of the proposal which was signed last week is attached. My approach for this portion of the contract is to get your opinions regarding HP's image as well as contact on my own a couple of industry consultants and HP's competitors. It would really help me out if you could give a little thought to some of the questions/issues stated below and jot down your thoughts.

You can fax anything you've got back to Judy. Anything that you could give me would be of considerable help. Keep in mind that we're focusing primarily on the computer industry aspects of HP's image... say not the controls division. To prompt your memory about HP, I had intended to enclose a current profile. However, I'm sitting here at my parent's house and don't even have the vaguest notion of whether we have one. If we do, Judy will attach it. (No Profile on H-P). *JP*

1. Do you think of HP as a:

Systems Company	Y/N	1-5= 3	Degree
Services Company	Y/N	1-5= 4	Degree
Hardware Manufact.	Y/N	1-5= 5	Degree
Instrument. Manu.	Y/N	1-5= 2	Degree
Solution Provider	Y/N	1-5= 3	Degree

Customer Service is 5

Comments on HP's Overall Image:

2. On a scale of 1-5 to what degree do you perceive HP to have a single image in the market? 3

If above 3, what would you say that image is?



STAPLES TOWSON #118

TEL:410-337-7214

Jul 27,92

9:22 No.007 P.06

HP IMAGE STUDY - PAGE 2

1. Please list either the vertical industry markets or cross-industry markets in which you think HP has a strong image. For each one comment on the product or service that you think gives them good position.

MARKET

COMMENTS

Engin/Sci	hardware capabilities / uptime	cust service
Discrete Manuf.	hardware capab / uptime	cust serv
Process Manuf.	hardware capab / uptime	cust service
Health	hardware capab / uptime	cust serv.

Any other comments on HP's position in vertical/cross-industry markets:

Service image — customer service

5. On the good old 1-5 scale please rate HP on quality?

What products or services would you say give them that image? (Good or bad.)

6. Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories. Include list of competitors who you believe to be better perceived in the market.

PRODUCT/SERVICE

1-5

SUPERIOR COMPETITORS

Mini-Computers

3

Digital, IBM

Peripherals

3.5

A range of peripheral 15M, DEC, & many others

Workstations

4

Sun

Personal Comp.

3

IBM, Compaq

Personal Printers

5

Epson, many others

Software (Apps.)

3.5

IBM, CA, & many others

Field Service

5



HP IMAGE STUDY- PAGE 3

ii

Are there product or service lines which I have overlooked? If so please give me the product or service offering and your view of HP's position.

Some Systems Software Corp

7. What is your perception of HP's current advertising? Please use the 1-5 scale.

Overall corporate image? 2

Product or division specific? 4

8. Do you think that the market perceives HP as primarily a holding company (☒) or a full service solutions provider, (☐)? (Please check the appropriate box)

9. Please give me any other information that you feel would be useful in meeting the project objectives for Phase I:

HP does not seem to profit in image from its individual strengths

THANKS! RJDW



Jul 27, 92 9:22 No.007 P.05

J.P. Richard

HEWLETT-PACKARD IMAGE STUDY

FROM: Denny Wayson
TO: Tom O. John McCann, J. P., Al, John Frank
Laura, John McGilvery, ~~John~~ Torrey

I recently signed a QAD kind of agreement with McCann-Erickson to gather industry impressions of HP's corporate image. This is just a \$5,000 job that could lead to a significantly larger piece of business, if they like what they see on this go-around.

A copy of the proposal which was signed last week is attached. My approach for this portion of the contract is to get your opinions regarding HP's image as well as contact on my own a couple of industry consultants and HP's competitors. It would really help me out if you could give a little thought to some of the questions/issues stated below and jot down your thoughts.

You can fax anything you've got back to Judy. Anything that you could give me would be of considerable help. Keep in mind that we're focusing primarily on the computer industry aspects of HP's image... not the controls division. To prompt your memory about HP, I had intended to enclose a current profile. However, I'm sitting here at my parent's house and don't even have the vaguest notion of whether we have one. If we do, Judy will attach it. (No profile on H-P).

1. Do you think of HP as a:

Systems Company	<input checked="" type="radio"/> Y/N	1-5= 3	Degree
Services Company	<input checked="" type="radio"/> Y/N	1-5= 3	Degree
Hardware Manufact.	<input checked="" type="radio"/> Y/N	1-5= 5	Degree
Instrument. Manu.	<input checked="" type="radio"/> Y/N	1-5= 3	Degree
Solution Provider	<input checked="" type="radio"/> Y/N	1-5=	Degree

Comments on HP's Overall Image:

Have seen evidence in the press they are setting up SI function but they still look & feel like a hardware manuf.

2. On a scale of 1-5 to what degree do you perceive HP to have a single image in the market? 4 (hardware)

If above 3, what would you say that image is?

hardware provider



STAPLES TOWSON #148

TEL: 410-337-7214

Jul 27, 92 9:22 No.00/ Y.US

HP IMAGE STUDY - PAGE 2

4. Please list either the vertical industry markets or cross-industry markets in which you think HP has a strong image. For each one comment on the product or service that you think gives them good position.

MARKET

COMMENTS

Health Sciences	Process Manuf.	Control of process equipment
	Biomedical Lab work primarily	
	Process Manuf.	PLM achieved control equipment - shop floors

Any other comments on HP's position in vertical/cross-industry markets:

5. On the good old 1-5 scale please rate HP on quality?

5 What products or services would you say give them that image? (Good or bad.)

Good reputation for overall functionality and technological excellence, usually at the forefront in technology.

6. Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories. Include list of competitors who you believe to be better perceived in the market.

PRODUCT/SERVICE

1-5

SUPERIOR COMPETITORS

Mini-Computers

3

DEC / ~~SUN~~

Peripherals

?

Workstations

3

SUN

Personal Comp.

2

mod. PC compatible vendors + MAC

Personal Printers

?

Software (APPL.)

?

Field Service

4

DEC



STAPLES TOWSON #148

TEL:410-337-7214

Jul 27.92 9:22 No.007 P.U7

HP IMAGE STUDY- PAGE 3

Are there product or service lines which I have overlooked? If so please give me the product or service offering and your view of HP's position.

*Don't know enough about HP product line
to properly answer this question*

7. What is your perception of HP's current advertising?
Please use the 1-5 scale.

Overall corporate image? 4

Product or division specific? 3-2 probably because of diverse product line

8. Do you think that the market perceives HP as primarily a holding company (), or a full service solutions provider, (✓)? (Please check the appropriate box)

9. Please give me any other information that you feel would be useful in meeting the project objectives for Phase I:

THANKS! RHW



07/27/92 11:11

415 981 3888

INPUT

--- TOKYO

002/007

STAPLES TOWSON #148

TEL:410-337-7214

Jul 27.92

9:22 No.007 P.05

TETSUO IMAI

7/31/92

HEWLETT-PACKARD IMAGE STUDY

FROM: Denny Wayson
 TO: Tom O. John McGann, J. P., Al, John Frank
 Laura, John McGilvary, John Torrey

I recently signed a QAD kind of agreement with McGann-Erickson to gather industry impressions of HP's corporate image. This is just a \$5,000 job that could lead to a significantly larger piece of business, if they like what they see on this go-around.

A copy of the proposal which was signed last week is attached. My approach for this portion of the contract is to get your opinions regarding HP's image as well as contact on my own a couple of industry consultants and HP's competitors. It would really help me out if you could give a little thought to some of the questions/issues stated below and jot down your thoughts.

You can fax anything you've got back to Judy. Anything that you could give me would be of considerable help. Keep in mind that we're focusing primarily on the computer industry aspects of HP's image... my not the Controls Division. To prompt your memory about HP, I had intended to enclose a current profile. However, I'm sitting here at my parent's house and don't even have the vaguest notion of whether we have one. If we do, Judy will attach it. (Two profiles on H-P). *JP*

1. Do you think of HP as a:

Systems Company	Y/N	1-5=	4	Degree
Services Company	Y/N	1-5=	2	Degree
Hardware Manufact.	Y/N	1-5=	5	Degree
Instrument. Manu.	Y/N	1-5=	4	Degree
Solution Provider	Y/N	1-5=	3	Degree

Comments on HP's Overall Image:

• One of excellent companies

• Mid-range computer manufacturer which has a

2. On a scale of 1-5 to what degree do you perceive HP to have a single image in the market? 2

If above 3, what would you say that image is?

Minicomputers and workstations
 manufacturer

strength in
 engineering and
 process control
 sectors.



07/27/92 11:11

0415 981 3986

INPUT

TOKYO

003/007

STAPLES TOWSON #148

TEL:410-337-7214

Jul 27/92

9:22 No.007 P.06

HP IMAGE STUDY - PAGE 2

4. Please list either the vertical industry markets or cross-industry markets in which you think HP has a strong image. For each one comment on the product or service that you think gives them good position.

MARKET

COMMENTS

EngineeringProcess ControlFinancial

Any other comments on HP's position in vertical/cross-industry markets:

5. On the good old 1-5 scale please rate HP on quality?

4 What products or services would you say give them that image? (Good or bad.)

Hardware

6. Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories. Include list of competitors who you believe to be better perceived in the market.

PRODUCT/SERVICE	1-5	SUPERIOR COMPETITORS
<u>Mini-Computers</u>	<u>4</u>	<u>DEC</u>
<u>Peripherals</u>	<u>3</u>	<u>?</u>
<u>Workstations</u>	<u>4</u>	<u>Sun</u>
<u>Personal Comp.</u>	<u>2</u>	<u>IBM, Apple</u>
<u>Personal Printers</u>	<u>2</u>	<u>?</u>
<u>Software (Apps.)</u>	<u>3</u>	<u>?</u>
<u>Field Services</u>	<u>3</u>	<u>?</u>



07/27/92 11:11 415 861 3800
STAPLES TOWSON #148 TEL:410-337-7214

INPUT

--- TOKYO

004/007

Jul 27.92 9:22 No.007 P.07

HP IMAGE STUDY- PAGE 3

Are there product or service lines which I have overlooked? If so please give me the product or service offering and your view of HP's position.

No.

7. What is your perception of HP's current advertising?
Please use the 1-5 scale.
Overall corporate image? 3
Product or division specific? 4
8. Do you think that the market perceives HP as primarily a
building company (), or a full service solutions provider,
(Y)? (Please check the appropriate box)
9. Please give me any other information that you feel would be
useful in meeting the project objectives for Phase I:

THANKS! KDW



INPUT® Service Update

Route:

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A Publication from INPUT's Customer Services Programme—Europe

July 1992

IN THIS ISSUE:

- 1 The Hewlett-Packard Response Centre
- 7 News from the U.S.A.
- 10 News from Europe
- 11 Snippets

The Hewlett-Packard Response Centre

A Global Service

Hewlett-Packard (HP) is continuing to receive the top awards in customer satisfaction studies run by independent organisations. In many aspects of service, if HP does not come first, it is certainly unusual for any satisfaction parameter to be poorly rated by its users. What more natural than that *Service Update* should want to make a visit to an HP Response Centre a high-priority item in its 1992 calendar of such visits?

The first and most basic concept to which the visitor is introduced is that of the global network. INPUT's port of call was HP's U.K. Customer

Response Centre in Winnersh outside Reading, Berkshire. This has been the centre for all U.K. support for almost ten years, but is scheduled to be relocated in the nearby U.K. head office outside Wokingham later in 1992. It was soon impressed upon us that although principally accessed from the U.K., this Customer Response Centre (CRC) was one of the four major hubs of the worldwide HP response network. Exhibit 1 shows the backbone structure, with two main hubs in the USA and two outside it.

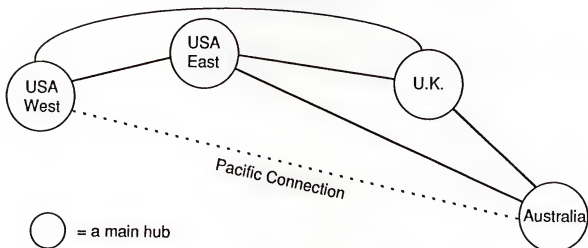
These hubs connect to all subsidiary response centres and field engineering offices around

the world. All centres have access to the same Problem Knowledge database, so that any customer can, with one telephone call, be in touch with the whole HP support resource. The worldwide database of fault and service information is being accessed continuously round the clock, and engineers in one location are thus able to continue to give support to a customer even though the customer's local or national centre may be closed for business during the hours of darkness or during a holiday. This ability to hand on a service call from one engineer to another can happen without

Continued on next page

Exhibit 1

Hewlett-Packard's Global Response Network The Backbone



Source: INPUT

any inconvenience to the customer, to whom it can be totally transparent. In this global network environment, every midnight all local components of the company's service database are updated to the new day's status in a synchronised manner.

The Organisation

The U.K. Response Centre is linked to Response Centres throughout Europe, e.g., to the equivalent centres in Germany and France. Normally, customers will access their nearest national response centre, but, depending on the type of problem encountered, resources will be obtained from

the most appropriate centre of expertise. Centres of expertise are found spread across the USA and Europe. For example, the Winners site is the European centre for Novell networking know-how and services users in other large and smaller countries. Another way in which expertise can be called up is by referral to the engineering teams responsible for each product or project. Exhibit 2 illustrates the access links needed to implement the delivery of service expertise.

Within the U.K. organisation there are nine separate departments with customer service responsibility. Some of these operate reactively as a

function of incoming requests for service. Others act in a more proactive way, and some of HP's newer services have been given to this second group to deliver.

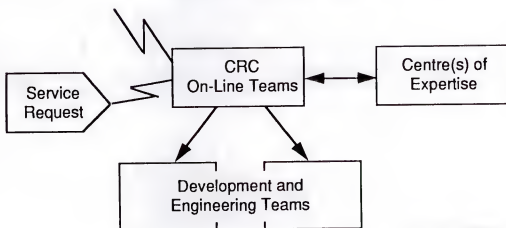
The normal task of servicing a request filters a user's call in one of three directions depending on whether it is for:

- Hardware
- Software
- Networking

Customer Support Operations is the department that receives incoming service calls. It has responsibility for qualifying calls, arranging for response to

Exhibit 2

Necessary Access Links



Source: INPUT

them by a person qualified to diagnose the problem, and finally, if an on-site call is required, for organising the engineer despatch calls. In 50% of cases an on-site visit is not needed.

Engineering Services is the department providing the logistical support to the entire customer service operation. It uses the statistics gathered in the worldwide database for planning the spares holding, controlling inventory and generally doing the housekeeping for Customer Support.

Escalation procedures are built into the standard user contract. These are triggered when a 'hot' site criterion is exceeded, i.e., "you are taking too much time to repair a particular fault." The standard delay is four hours before a site is

declared a "problem site"; after a further four hours it becomes a "hot" site. A problem site manager is appointed to produce an action plan with the affected user. Hot sites appear on a new database that is available to the Response Centre Manager. The appointed problem site manager is usually the local district manager for support. The key challenge at this juncture is to communicate both internally and to the customer what needs to be done to resolve the problem.

Processes

The procedures described above are those typically needed to service a hardware fault call. These service procedures have been developed to handle the standard layered hardware maintenance services that are

summarised in Exhibit 3. There are, however, other procedural routes through which customers may be shepherded depending on the nature of the call.

In the software area, the Response Centre reacts in a similar way to the hardware fault procedure. On receipt of a call, the Response Centre engineer logs it into the database and it follows a similar path to find the appropriate knowledge resource. Software teams are organised roughly into three areas:

- Proprietary systems—MPE
- Open systems—UNIX/HP-UX
- Networking

Continued on next page

INPUT

Exhibit 3

Hewlett-Packard Hardware Maintenance Service

	Coverage	Response
Priority Plus support For critical applications, multishift operations.	7 days a week. 24 hours a day.	Best response is not more than 4 hours.
Priority support Maximum availability during standard business hours and evenings.	5 days a week. 9am - 9pm.	Best response not more than 4 hours.
Next day support Where your application allows for delivery of service the next day.	5 days a week. 9am - 5pm.	Next day response.
Scheduled support Economical solution if a user has multiple PCs or workstations and the end users are running less critical applications	5 days a week. 9am - 5pm.	Weekly visit, Monday to Friday

Source: INPUT

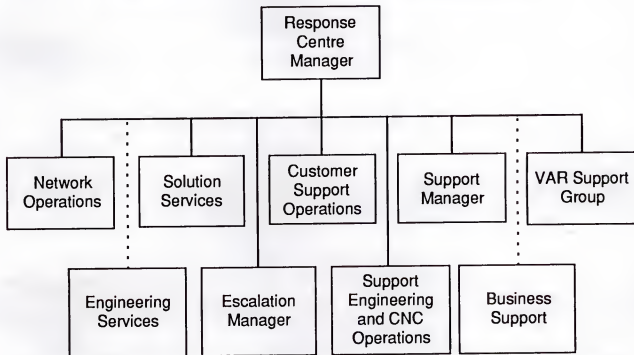
Mixed teams allow for cross-fertilisation of ideas to cope with the often totally open networking and multivendor user situations. Software tools, keyword searching, and on-line documentation on CD ROM are all used to help speed problem resolution.

In the networking area, a new focus has been set up over the last 12 months in the Network Operations section (see Exhibit 4). This consists of a large mixed team that is able to support whole networks as well as look after the daily "nuts and bolts" problems at the local level. This section operates with a customer focus across

both open and proprietary networks of HP, Novell or other manufacturer's origin.

The section is able to undertake complete FM deals for user networks. It can support users from the Remote Network Support Centre at Bristol, U.K., which offers 24-hour network

Exhibit 4

Hewlett-Packard—U.K. Customer Response Centre

Source: INPUT

management and full administrative facilities, including regular reports.

Other Sections

Another new area of proactive support has been established within the last year. This is the Solution Services section, which gives support to users with solutions based on important third-party products from the independent software sector. Products such as INGRES and ORACLE are key products for many of HP's customers and HP feels it cannot stand aside and not

support its customers in an integrated manner at the application level.

This venture is of strategic significance and has been under way for over six months. It involves cross-training between HP and the independent vendors whose products are selected. For example, HP staff are trained on ORACLE products and ORACLE staff are trained on HP software and hardware products. It is proving to be a key growth activity.

HP is, of course, also a leading vendor of peripherals, such as

plotters and ink jet and laser printers. These products, like HP PCs and terminals, are normally sold through the dealer distribution channel. Support to dealers is the responsibility of the VAR Support section, which has both reactive and proactive components. In interactive mode, the section handles the day-to-day queries of the dealer community, which have arisen from dealers' users. In proactive mode, the section is on the lookout for quality support issues and for training requirements that may arise

*Continued on next page***INPUT**

HP ...from page 5

among the dealers themselves. The section also supports certain of HP's major users on a second-line basis, where these have opted for self-service in the desktop services area.

People and Technology

Response Centre engineers have account responsibilities as well as product line expertise. HP is building towards increasingly proactive "relationship support" in which evaluation of user comments, understanding how a user's network supports that user's business processes, and in-depth industry knowledge all play a part in retaining that account for repeat business.

Most engineers have had a good technical training and background before joining HP. Many have extensive experience with HP user companies; a smaller number have joined HP directly after finishing their education. Key skills sought are:

- Good technical knowledge
- Good approach to problem resolution

The culture of the Response Centre is designed to reward the team effort. To this end, management is constantly monitoring processes and effectiveness, seeking through both internal and external contacts to foster "best practice." One technique is to employ staff on exchange periods, i.e., engineers swap

places with colleagues from other countries. This is found to stimulate new and improved practices.

Future Trends

HP is going to be using more workstation technology of its own manufacture to make the organisation more efficient. For example, the increasing use of CD ROM readers attached to engineers' workstations has two obvious advantages:

- Compared with storing documentation on disk or tape, the physical storage space used by archiving on CD ROM is an order of magnitude less.
- The need to update by throwing away the previous CD ROM version (since the physical disk cannot be written on again) means that there is much less likelihood of getting muddled between succeeding generations of software.

BSI accreditation, which HP has already obtained, is seen as essential for a 1990s service operation. The pace of change is felt to be increasing, and the challenge is to evolve to meet user needs in the most cost-effective way. Exhibit 5 summarises INPUT's assessment of the major characteristics of the HP service operation that are leading it to perform so consistently well in the eyes of its user base. ■

Exhibit 5

Key Reasons for HP's Service Accolades

- Global response coverage
- Traditional workmanlike approach
 - Hardware
 - Software
 - Networking
- Pursuit of excellence in an harmonious environment

Source: INPUT



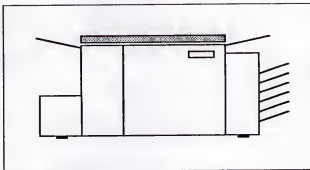
News from the USA

Kodak Case Finally Gets a Ruling

On June 8, the U.S. Supreme Court ruled that the Eastman Kodak Company must stand trial on allegations that it tried to monopolize the market for servicing its photocopying and micrographics equipment and hoped to drive smaller service competitors out of business.

The decision, which permits a lawsuit by a group of independent service companies to go forward, was a surprising move by a conservative court against the University of Chicago school of economic theory, beloved of the Reagan and Bush administrations. It upholds competition in the \$100 billion aftermarket in service and replacement parts for everything from autos to computers, and hence could threaten many manufacturers'

growing reliance on income from this market.



The dispute dates back to 1985, when Kodak began limiting the availability of parts for its high-volume copiers and

agreed not to use outside service companies.

Reopening the issue of how manufacturers may treat third-party maintenance companies, the U.S. Supreme Court ruled against Eastman Kodak Co. on a six to three vote, affirming a federal appeals court ruling reinstating an antitrust lawsuit filed

against Kodak in 1987 by 18 independent companies that repair Kodak copiers and printers. The 18 charged that

"...the U.S. Supreme Court ruled against Eastman Kodak Co. on a six to three vote..."

micrographics machines. The Rochester (NY) giant allegedly told customers they could get replacement parts only if they

Kodak violated federal antitrust law by refusing to sell replacement parts to owners of Kodak equipment unless they agreed not to do business with

Continued on next page

INPUT

News from the USA

...from page 7

independent repair and service companies. Kodak contended that it does not have sufficient control over the market for copiers and microfilm printers to be able to engage in anti-competitive practices that inflate the price of repair services. Briefs in support of Kodak were filed by the Computer and Business Equipment Manufacturers' Association and a number of manufacturers, including Unisys, Digital Equipment, Hewlett-Packard, Prime and Wang.

Kodak and its industry supporters argued that because there was vigorous competition in the sale of the equipment itself, the company could not

Justice Blackmun ruled otherwise. His majority opinion noted that while the efficient market theory may hold true in a perfect world, in reality customers often could not afford the high cost of switching vendors to save on service. He also said that Image Tech and other plaintiff companies had provided enough evidence of a separate aftermarket in Kodak service and had raised serious questions about whether Kodak had tried to thwart its competitors in the market.

The ruling could revive pending cases against other electronic equipment makers, ignite new ones and hearten efforts by independent spare-parts makers to broaden the availability of generic replacements parts, such as for cars damaged in accidents.

and others have come to rely more on service for cash flow as a bulwark against declining profits from equipment sales. Wang, for example, obtained 42% of its \$2 billion in 1991 sales from services. Other system vendors typically achieve gross profit margins of 40% to 50% on servicing. Now the fear is that they may have to turn over closely guarded, proprietary diagnostic software and training materials to independent competitors. After the dust settles, the court's ruling will set the stage for a new relationship between manufacturers and third-party service companies. For users and consumers, the decision is likely to result in lower prices for service. ■

INPUT comment: It is ironic that this decision should come for computer maintenance organisations at a time when the reliability of new electronic equipment threatens to shrink the equipment maintenance sector drastically over the next decade. Nevertheless, spare parts will remain a key component of repair costs.

exert monopolistic power over the market for service and parts of the equipment. In an efficient market, Kodak said, buyers would stop purchasing equipment from companies that priced too high.

The decision also imperils the increasing reliance by big manufacturers on revenues from service and repair. As sales of capital goods have slowed in the sluggish global economy, computer vendors

ADP increases Its U.S. Portfolio of Business Services

Automatic Data Processing Inc. (ADP) of Roseland, New Jersey, has acquired Independent Election Corporation of America, a Lake Success, New York distributor of annual reports and proxy materials, with revenues of \$60 million a year.

INPUT comment: ADP was one of the first processing and network services companies to move outside the computer industry and start to offer complete business services such as payroll processing. This move to add information delivery to its service portfolio is indicative of a growing trend

to combine information and service as individual packaged offerings.

More recently, ADP completed acquisition of the assets and liabilities of the Business Services Division of BankAmerica Corporation, paying about \$200 million in cash. The services company gets the payroll processing and payroll tax filing business of the unit, as well as an ongoing marketing relationship. The Business Services Division services some 17,000 clients, bringing in \$125 million in annual revenues. ■

SNI Moving into Systems Integration

Siemens Nixdorf Informationssysteme AG (SNI) has formed the Siemens Nixdorf Systems Integration

Group in Burlington, Massachusetts, with a particular focus on network integration services. ■



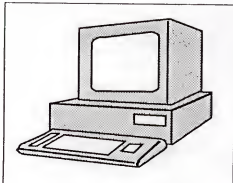
News from Europe

Raytheon Data Logic Offers Mix 'n' Match Network and Communications Services

A new range of independent network services is being offered by a newly launched division of Lexington, Massachusetts-based Raytheon Company, Data Logic Communication Services Limited. The division was created by the merger of Harrow, Middlesex, U.K.-based Data Logic Limited's personal computer maintenance and support operations with Raytheon Communications, a telecommunications and network infrastructure specialist.

Initially set up in November 1991, it is a wholly owned subsidiary of Raytheon, has 170 employees and is run by Peter Murray, the former director of European service for Data Logic. Communication Services, based in Harlow, Essex, claims that its strength lies in being able to offer an integrated range of network services in a

multivendor environment, while project managing them from one point.



Covering data networking and telecommunications, the package has been called Netsure. It is aimed at medium to large-scale companies wanting to move away from service "lock-ins" and is said to offer tailor-made services to meet specific information technology requirements. Users can take up or drop different elements of the services offered according to need, the company says. Netsure is said to cover all aspects of network operations,

including initial design, consultancy, implementation, maintenance and support, as well as complete facilities management of personal computer-based and networked computing operations if required.

Communication Services claims to be working for the customer in partnership with manufacturers and value-added resellers to provide the most cost-effective solution. Two recent clients are Woking, Surrey-based Hogg Robinson plc, the travel and insurance group, and London-based Coopers & Lybrand, one of the big management consultancies. Average contract value ranges from £200,000 to £1 million.

INPUT comment: Data Logic has structured its offering to maximise the comprehensiveness of the service while at the same time ensuring that the less profitable components are outsourced. ■

BA Systems Struck Twice by Lightning



British Airways' IT staff spent time in June clearing up storm damage, after lightning struck twice at the airline's Heathrow base.

Electrical storms that swept across southern England at the beginning of the month played havoc with BA's aircraft-tracking, cargo-handling and seat-planning systems, a spokesman for the company reported.

- Cargo networks were thrown into temporary chaos when BA's Heathrow computer room was hit by lightning, causing static damage to systems.

- The airline's global aircraft tracking system, FIND, fell victim to the weather when a second bolt of lightning struck another building at the airport.

- Water and debris also crashed onto the airline's PC-based seat-reservation planning system, Cobra, after a flat roof collapsed under two inches of rain during the storms. PCs were damaged by the collapse, but the network kept going.

Engineers from BA's Field Systems Services maintenance

and support arm were on duty throughout the night during the week to limit damage and restore communications as the storm lashed the airport.

INPUT comment: Networked systems, being inherently more extensive than simple standalone data centres, will increasingly need the same levels of protection that users are now providing for their major host centres. Network disaster recovery is a subject to which users will no doubt need to refer in the coming months and years. ■

Snippets

- ❖ IBM U.K. Limited has announced price rises on most software and services by an average of 6% to 9%. More detail will be provided next month.
- ❖ Following its acquisition of BICC Data Networks, 3COM Corporation has opened a new pan-European support centre in Birmingham, U.K. dedicated solely to the support of data networking products. It has 45 support employees.
- ❖ Bull's U.K. network and cabling services group has won a £300,000 contract to install structured cabling systems and a local-area network in Scottish Nuclear's East Kilbride headquarters. ■

About INPUT

INPUT is a worldwide consulting and market research firm uniquely focused on the information technology services and software markets. Executives in many technically advanced companies in Europe, North America, and Japan rely on INPUT for data, objective analysis, and insightful opinions to support their business plans, market assessments, and technology directions. By leveraging INPUT's considerable knowledge and expertise, clients make informed decisions more quickly, and benefit by saving on the cost of internal research.

Since 1974, INPUT has compiled the most extensive research base available on the worldwide information services market and its key segments, providing detailed market forecasts, vertical industry sector analysis and forecasts and analysis of vendor strategies and products. INPUT delivers specific expertise in the fast changing areas of outsourcing, systems integration, EDI/electronic commerce, software development/CASE, and on the impact of downsizing.

Consulting services are provided by more than 50 professionals in major international business centers. Clients retain INPUT for custom consulting/proprietary research, subscription-based continuous advisory programs, merger/acquisition analysis and user satisfaction surveys.

Most clients have retained INPUT continuously for a number of years, providing testimony to INPUT's consistent delivery of high-value solutions to complex business problems. To find out how your company can leverage INPUT's market knowledge and experience to gain a competitive edge, call us today.

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FAX TRANSMITTAL FORM

Date: Aug 17
To: Name: DENNY WATSON
Tel./Location: _____
Co.: _____
Fax No: 961-3966
From: PETS
Subject: HP

Confidential: Y/N
Urgent: Y/N

Page: 1 of 4

File: Chron
Contact
Other:

Here the help!

Comments included from a software supplier.

08-17-92 11:09

415 801 3866

INPUT

+++ PETER & PAT

001/003

HEWLETT PACKARD IMAGE STUDY
Interview Guide

Name: Pete Cunningham
Title: _____
Company: _____
Address: _____
City/State/Zip: _____
Telephone: _____

Denny

We are trying to gather information on your perceptions of Hewlett Packard as a participant in the information services industry. It would be greatly appreciated if you could provide us with the answers to a few brief questions to assist us in getting your impressions regarding HP's overall image, your viewpoints on some specific classes or products and service offerings, and any other thoughts you might have regarding HP's participation in the market.

- 1.0 The following five terms describe ways in which HP and other companies in the industry might be characterized. On a scale of 1 - 5 please give me your impression of the degree to which the term applies to HP. (1 = Not applicable, 5 = Very applicable)

- 3 Systems Company (Hardware/Software)
2 Services Company
5 Hardware Manufacturer — *Calculus and printers and workstations*
4 Instrument Manufacturer
1 Solution Provider — *except in design environment*

Comment: Not viewed as a software company - in spite of having some excellent software.

- 2.0 Using the same 1 to 5 scale to what degree do you perceive HP to have a single image in the market place?

4

- 2.1 What would you say that HP's overall image is?

High quality hardware provider - quite far a
software company "Best kept in the market today"

08/17/92 11:10 415 861 3960

INPUT

444 PETER & PAT

0002/003

- 3.0 HP like other major industry player's participates in a variety of vertical and cross-industry markets. I'd like you to list each vertical or cross-industry market where you believe that HP has a significant position. For each one, I'd like you comments as to what HP products or services help give HP a good market position.

Market	Comments
CAD/LASER/LAM	Apple workstations - price, price, performance
FOA	HP 95 was a state-of-the-art product -
Printer	has not been there - up -
	low-price and an HP dominated market

- 3.1 Do you have any other comments on HP's position in vertical or cross-industry markets?

- 4.0 On a scale of 1 to 5 how would you rate HP's image with regard to quality?

4.5 - reliable, rugged, powerful

- 4.1 What products or services would you say give them that quality rating? (Good or Bad.)

Computers, terminals/workstations, printers

- 5.0 Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories of product or services. (1 = Low, 5 = High) I'd also like your impression of which of HP's competitors have superior offerings in each category.

Rate	Product/Service	Comments on Competitors
3	Mini Computers	IBM/AS/400, RS/6000
4	Peripherals	
2	Workstations	Many including Apple, Compaq, IBM.
4	PCs	
3	Printers/Desktop	1617 NCR, SRI, DEC (essentially more reliable than others.)
	Software	
	Field Service	

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0003-003

- 5.1 Are there products or services that I failed to list that you would like to comment on? If so, please rate and describe them below.

Rate	Product/Service	Comments on Competitors
4	Instrumentation	for process control
4	Filtering	digital products

- 6.0 What is your perception of HP's current corporate level advertising in terms of conveying a company identity or image? (Please use the 1 to 5 scale, 1 = Ineffective, 5 = Very effective.)

3 - no message as to solutions

- 6.1 What is your perception of HP's product or division specific advertising? (Please use the same rating scale as above.)

4 - pushes the product characteristics price/performance etc.

- 7.0 Do you believe that the market perceives HP as primarily a holding company or a provider of integrated solutions? Please check the appropriate box below.

☒ Holding Company
☐ Integrated Solution Provider

- 8.0 Please give me any other information that you think might be relevant to evaluating HP's image in the information services market place.

They are viewed as a provider of high performance high quality hardware with some services but not good software. They need relationship with service companies (e.g. De Anderson) be not in services themselves. Attention for software in IAE area

Thank you for your cooperation. Your responses will be kept in strictest confidence and will make a valuable contribution to this study.

Interview Guide

Name: NARAYAN LITILL
Title: _____
Company: _____
Address: _____
City/State/Zip: SF -
Telephone: 415-

We are trying to gather information on your perceptions of Hewlett Packard as a participant in the information services industry. It would be greatly appreciated if you could provide us with the answers to a few brief questions to assist us in getting your impressions regarding HP's overall image, your viewpoints on some specific classes of products and service offerings, and any other thoughts you might have regarding HP's participation in the market.

- 1.0 The following five terms describe ways in which HP and other companies in the industry might be characterized. On a scale of 1 - 5 please give me your impression of the degree to which the term applies to HP. (1 = Not applicable, 5 = Very applicable)

5 Systems Company (Hardware/Software)
4 Services Company
5 Hardware Manufacturer
5 Instrument Manufacturer
5 Solution Provider →

- 2.0 Using the same 1 to 5 scale, to what degree do you perceive HP to have a single image in the marketplace?

2

- 2.1 What would you say that HP's overall image is?

HIGH QUALITY - RELIABILITY - HIGH END
HIGH TECH - PROVIDING CUSTOMIZED
USER ORIENTED SYSTEMS SOLUTIONS

- 3.0 HP, like other major industry players, participates in a variety of vertical and cross-industry markets. I'd like you to list each vertical or cross-industry market where you believe that HP has a significant position. For each one, I'd like your comments as to what HP products or services help give HP a good market position.

Market

Comments

A graph on lined paper showing two intersecting curves. One curve is concave up and the other is concave down, intersecting at a point.

- 3.1 Do you have any other comments on HP's position in vertical or cross-industry markets?

- 4.0 On a scale of 1 to 5 how would you rate HP's image with regard to quality?

5.0

- 4.1 What products or services would you say give them it quality rating? (Good or Bad.)

EVERYTHING THEY DO

- 5.0 Could you please give me your view on how you believe the industry rates HP against its competitors in each of the following categories of product or services? (1 = Low, 5 = High) I'd also like your impression of which of HP's competitors have superior offerings in each category.

Rate	Product/Service	Comments on Competitors
<u>4</u>	Mini Computers	<u>DEC / IBM</u>
<u> </u>	Peripherals	<u> </u>
<u>4</u>	Workstations	<u> </u>
<u>4</u>	PCs	<u> </u>
<u>5</u>	Printers/Desk	<u> </u>
<u>4</u>	Software	<u>QW ABOVE</u>
<u>4</u>	Field Services	<u>COMPUTATIONAL QUANTITATIVE</u>

- 5.1 Are there products or services that I failed to list that you would like to comment on? If so, please rate and describe them below.

Rate	Product/Service	Comments on Competitors
------	-----------------	-------------------------

- 6.0 What is your perception of HP's current corporate-level advertising in terms of conveying a company identity or image? (Please use the 1 to 5 scale, 1 = Ineffective, 5 = Very effective.)

1.0

- 6.1 What is your perception of HP's product or division specific-advertising? (Please use the same rating scale as above.)

1.0

- 7.0 Do you believe that the market perceives HP as primarily a holding company or a provider of integrated solutions? Please check the appropriate box below.

☒ Holding Company _____
☒ Integrated Solution Provider _____

- 8.0 Please give me any other information that you think might be relevant to evaluating HP's image in the information services marketplace.

LOW PROFILE - DOWN SYSTEM ORIENTATION
LEADER IN NICHES - LACKING AN OVERALL
DIRECTION & IMAGE. SOMEWHAT LIKE DEC.

Thank you for your cooperation. Your responses will be kept in strictest confidence and will make a valuable contribution to this study.

DIFFERENCES - ORIENTED - GOOD HARDWARE -

